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RECONSTRUCTION
OF
INDIAN AGRICULTURE

BY
V. Y. KOLHATKAR

POPULAR BOOK DEPOT
BOMBAY 7
1946

RECONSTRUCTION OF INDIAN AGRICULTURE

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RECONSTRUCTION OF INDIAN AGRICULTURE

BY

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THE POPULAR BOOK DEPOT
BOMBAY 7

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PREFACE

The ideas elaborated in the pages of this book were first placed by me before the public in a series of loosely connected articles in a Marathi monthly of Poona in the year 1939-40. Since that time the general public in India have been educated to think in terms of planning. I therefore thought that I could, with advantage, rewrite my thesis in the form of a book and offer it to the public.

Economic planning cannot be adopted for a part only of a Country's economy. My effort in preparing a plan for Indian agriculture should not therefore be understood to mean that in my opinion planning can be sectional. In the text of this book there are references in a number of places where the connections between agricultural planning and the planning of the whole economy are indicated.

Planning involves collective effort and the application of science to the production and distribution of wealth. It must therefore be necessarily democratic. It cannot have the restriction of production, or the preparation for the war of aggression as its objectives. With such objectives it becomes pseudo-planning of the fascist and dictatorial type—a camouflage designed only to serve sectional interests and to impoverish the masses. In the scheme suggested by me, there is no room for any of these ends. Its basic purpose is to ensure an uninterrupted increase of wealth.

In learned economic discussions it is often presumed that planning must mean a dictatorial regime. Nothing, in my opinion, can be further from truth than this belief.

I have tried in the pages of this book to construct the plan on a democratic basis. I therefore humbly appeal to the readers to read this small volume carefully and to offer their constructive comments.

While I was engaged in giving final touches to the manuscript of this book the all-India famine suddenly developed and focussed the attention of the informed opinion in India on its gravity. My own thesis is of a long term character. Quite clearly, it can offer no ready-made solution to the impending national debacle. Under these circumstances I am forced to make some suggestions about the ways of meeting the danger of famine in this preface.

The Food Secretary of the Government of India announced on 4th March 1946 that there would be a deficit of six million tons in the food supply of India in the coming year. To meet this deficit the Government is making great efforts to import cereals from countries like the United States of America, Canada, Australia and Siam. Side by side, a five-points programme has been prepared to meet the crisis. The points are as follows:—

- (i) an overall cut of 25 p.c. in the basic cereal rations,
- (ii) the extension of rationing to many more towns in both surplus and deficit areas,
- (iii) the tightening of the provincial grain procurement,
- (iv) the enforcement of statutory price control, and
- (v) countrywide austerity drive.

Efforts are also to be made to grow more food, vegetables and hot weather grain.

The Indian National Congress has formulated a fifteen-points programme. Among other things, the Working Committee of the Congress expects the nation to help in making successful 'any measures for checking hoarding, black-marketing and corruption that may have to be taken on hand.' When there is a shortage of food, rationing is the only method of making available the supply of food to every person in the country. But this requires a complete control of the Government over the supplies available today and in future. Supplies from foreign countries, supplies from the producers within the country and supplies hidden in the hoards of the traders, high-salaried employees and other wealthy people must all be brought under Government control. In the procurement of supplies, anti-hoarding measures must be enforced with the greatest vigour. In the rationing arrangements special attention must be paid to the landless workers in the rural areas and those sections of the population in the urban areas whose incomes are below Rs. 100 or Rs. 75. It is only in this way that deaths due to starvation can be avoided. Other measures suggested by the Government and the Congress should of course be brought into force. But the question of distribution of food to the lower income groups is of the greatest importance. Relief works must be opened for those who have no income to buy food. It is doubtful how far the present Government can go in adopting these measures. Even popular Governments will not be able to do much unless they enlist the sympathies and active assistance of the mass of the people.

The manuscript of this book was ready more than six months ago. - It was awaiting its turn of printing in the queues of manuscripts eager to get themselves printed. About the

time it went into press the Cabinet Mission's constitutional plan was published. The book was written in expectation that the structure of the Indian Government would be of the federal type with a strong Government at the centre. However, in the Mission's scheme of creating a Union Government there is clearly no room for an All-India Plan for agricultural reconstruction. That work will have to be undertaken by the groups which go to form the Union.

I feel however that the plan I have outlined in this book can be adopted even by a group of Provinces provided it has the will to take up the job. The quantitative data given in the book in regard to a number of questions will have of course to be appropriately modified for the purpose. With these changes the plan can be made workable within the frame-work of the constitution of any group. The basic ideas would of course remain as they are. There will be one last but important modification necessary. If the groups have independent currencies, exchange rates will have to be appropriately manipulated. If, however, the union as a whole has one currency system any group adopting this plan will have rigidly to control imports and exports. If the Constituent Assembly agrees to have a strong centre there will be no difficulty in adopting my plan. But it is difficult to expect that the Assembly will agree to have a strong centre.

It was reported in the newspapers some time ago that the Bombay Government was seriously thinking of introducing co-operative farming in the province of Bombay. The second chapter of this book deals with the manner in which co-operative farming can be introduced. It is hoped that the discussion concerning it will be useful to those who are interested in putting farming on a co-operative basis.

I am much indebted to Prof. S. V. Kogekar of the B. M. College of Commerce, Poona for going through the manuscript of this book and for saving me from some theoretical errors.

V. Y. KOLHATKAR

CONTENTS

Chapter I— <i>The Objectives of Planning</i>	..	1·17
I Increasing production		
II Profitable agriculture		
III Self-sufficiency		
IV Control of Trade Cycle		
V Scientific Agriculture		
Chapter II— <i>Co-operative Farming</i>	..	18·42
I Reform of Tenures — Existing Tenures—Federalise agriculture —re-define rights.		
II Reform of the Scale—present scale— scale-subdivision — Reforms introduced — method:—purchase, Co-operation, precept and example.		
III Size and constitution—membership — technical and other decisions — capital and stock — past debts.		
IV Procedure of Business.		
V Advantages:—		
(1) Elimination of subdivision and its waste,		
(2) Rationalization of labour,		
(3) Mechanization,		
(4) Borrowing power doubled,		
(5) Farming on business footing,		

- (6) Centralised control easy,
- (7) Saving in Government administration,
- (8) Revenue administration simplified,
- (9) Other advantages.

Chapter III—*Output and Prices* 43 - 77

I Protection of crops—nature of uncertainty — Remedy — irrigation —Advantages — Further protection.

II Cottage Industries.

III Price stability — certainty of output — causes of fluctuations — Demand side — their operation — Remedy — price stability adjusting output — foreign demand and exchanges — supply side — conclusion.

IV Choice of the level of prices — The price norm and cost — Elements of costs — marginal and average costs — Advances in technique — differences in fertility — costs elements examined — standard of life — money wages — other costs — overhead expenses.

V Machinery and Method of stabilization — Method of control — Anti-monopoly measure—The machinery.

Chapter IV— <i>Industries Allied to Farming</i>	..	78-89
I The cattle problem — Cattle slaughter and meat packing.		
II Diary Industry — Output and Distribution.		
III Poultry Farming.		
Chapter V— <i>Past Debts and Future Credits</i>	..	90-107
I Rural Indebtedness — Causes — Government efforts — the nature of the problem.		
II Remedies: Past debts — Future debts.		
III Farm corporations — Internal needs — External.		
IV Use of existing equipment — Provision of finance: Fixed Capital — Working Capital and Government needs.		
V Fixed Capital — Other needs.		
Chapter VI— <i>Rural Reconstruction</i>	..	108-121
I Pre-British Village.		
II Modern changes — Aims of Reconstruction.		
III Finance of reconstruction.		
IV Economic and Political Democracy.		
V Congress Programme examined.		
Chapter VII— <i>The Machinery of Planning</i>	..	122-126
I Introduction.		
II The Administrative machinery.		

CHAPTER I

The Objectives of Planning

I

INCREASING PRODUCTION

The problem of Indian agriculture is viewed with grave concern by everyone interested in the industry. The Bengal famine has suddenly aroused a nationwide interest in increasing the produce of food-grains in India. The famine, it is believed, occurred as a result of the loss of Burma and other sources from which India was annually securing rice and other food-grains. It was also due to increased war demand, hoarding and negligence on the part of the government. If the country is to have an assured and adequate supply of food year by year the production of food-grains must increase and this requires the removal of two important defects in the technique of production viz. the absence of adequate irrigation facilities and the absence of good seed capable of yielding a large crop. Most planning measures of the government will, it seems, concentrate on removing these defects.

Shortage of food for the population of the country is, however, a temporary problem whose acuteness will be considerably mitigated as soon as normal peace-time conditions are re-established. Supplies from Burma will again be available and the internal stresses and strains will be removed. Prices of food-grains will then fall owing to the restoration of normal

competitive conditions. The schemes of the central and provincial governments will, as soon as they come to fruition, help to eliminate the danger of scarcity still further, and there may arise in future even a condition of relative glut.

Increasing the produce of the soil may, therefore, be a good short-time ideal from the national point of view. But, if planning is being considered as a long term policy of the government, we ought to bear clearly in mind that raising the produce of the fields will not solve the problem of the agricultural industry or of the agriculturist, but may even aggravate it. We have thus got to formulate clearly our objective in regard to the industry as a whole, and in regard to the rural agricultural population. And it is here, when we come to consider our long term objective for long term planning, that serious difficulties arise. For there does not appear to be any appreciable degree of unanimity in regard to our long term objective.

II

PROFITABLE AGRICULTURE

Most writings on the economics of Indian agriculture do not emphasize this particular aspect of the question. They do refer to the desirability of increasing the per capita or per acre produce from land. But this is mainly with a view to making agriculture profitable. The chronic unprofitability of agriculture can, it is said, be removed only by eliminating a number of drawbacks from which it suffers. Agriculture becomes a profitless venture because land is subject to a continuous process of sub-division and fragmentation which in its turn, is caused by the increase in our population and the operation of the law of inheritance. In addition, the land is losing conti-

nually in fertility, and is becoming unproductive. The cultivator is poor, ignorant and uneducated ; there is an almost destructive burden of debt on the farmer ; there is no good seed, no improved implements, no proper marketing facilities, no cheap credit and no efficient labour. Land has to support a disproportionately large human and cattle population. Lastly, there is the exceedingly complicated system of rights and privileges relating to land and its produce, which gives rise to the problem of tenancy.

To render agriculture profitable it is, in the first place, necessary, according to the Indian economists, to remove most of the drawbacks noted above. It is further suggested that land holdings should be made economic. An economic holding is, in this connection, explained as one which can give full employment to the labour supplied by an average-sized family, that is to say, probably one consisting of five persons. It is obvious that the size of an economic holding defined in this way will not be the same in dry tracts as it would be in wet tracts ; nor will it be the same in regard to fertile and infertile pieces in the same tract. There is, however, another consideration which is mixed up with the concept of an economic holding. Economic holding is thus further defined as one which can maintain an average-sized family in comfort. It must, that is to say, leave for the family a surplus over farm expenses and family food requirements, which can bring enough money income to the family to enable it to purchase the ordinary conventional necessities and comforts of life. Whether the ideal economic combination of land and family labour which yields profit will, at the same time, make for a happy peasant family is a debatable proposition. But, assuming that business profitability and family happiness coincide, such an ideal

economic combination of land and labour presupposes a fixed qualitative and quantitative technical equipment. However, if all the existing and known methods and appliances in agriculture are taken into consideration, the most economic combination of land and labour would clearly change. Economists in India always consider the objective of the profitability of agriculture mainly from the viewpoint of the farmer's family which has been a labour unit of production and a unit of ownership of land in the whole of past history. By the very method of approach, therefore, large scale mechanized farming is put outside the limits of discussion. This approach may have an economic end but it, at the same time, is based on certain sociological features of our agriculture, which are considered to be above discussion. All this clearly means that only that quality and quantity of technological equipment, material and non-material, which is, at the present time, being used on the existing economic holdings, if any, is taken as a basis in formulating schemes of putting agriculture on a profit-making footing. Perhaps some improvement in the equipment is suggested, but not its replacement by a mechanized equipment. It would not be out of place, in this connection, to note that, from the view-point of cost and yield, the application of modern scientific methods involving large scale farming would clearly give far better results than the system of profitable family farms as suggested by the Indian economists. By the very nature of their structure family-farms have no capacity, in material and non-material capital equipment and in managerial skill, which can successfully compete with large scale concerns. Scientific progress all over the world is slowly, though unmistakably, transforming agriculture from its simple structure into one in which mechanization constitutes its dominant feature. To preserve the family-farm and to buttress it,

by all legal and other means against change, would thus be to shut off the path which it would advantageously follow in the interests of greater abundance and prosperity. Mechanized farming is being introduced in a number of parts of the world.

Even, as one starts on the family basis, the creation of a system of economic holdings is beset with serious difficulties. For example, if the ideal economic holding in a dry tract of moderate fertility is twenty acres, some positive steps will have to be taken in creating it. This is because most land-holdings are much below that size. Four or five adjacent plots will have, in this case, to be bought over and put under the ownership of a single family. The first difficulty in this case would be of persuading the existing owner-families to agree to sell their pieces, and the second difficulty would be in determining which one of the selling families is to be put in possession of the newly created economic holding. Further, even if these two difficulties are solved, there would be a third hurdle to cross. Once an economic holding is created it should not later be allowed to disintegrate by the operation of the law of inheritance. But this cannot be done without changing the law and without dispossessing the already existing legal inheritors of the paternal holding, since the claim of inheritance in India is born with the birth of a son. Economic analysis, in the end, is thus bogged up, and the suggestions for making agriculture profitable reduce themselves only to feeble remedial measures which show no capacity for a really satisfactory and final solution. The objective discussed above of creating profitable economic holdings may, if successfully accomplished, result in an increase in the total physical produce of the soil. But, by itself, it is not concerned with the question of satisfying the

needs of the country, and of making it self-sufficient. National self-sufficiency in point of food-stuffs and profitable holdings are thus two different objectives though they may be compatible with each other. Historically, the latter was advocated first and the former has now come to be added to it.

III

SELF-SUFFICIENCY

It is desirable to spend some little thought on this doctrine of self-sufficiency, if for nothing else, at least for its correct appreciation. Self-sufficiency as a desirable end has often been advocated not only in relation to the nation as a whole but also in relation to its component parts. It is often enthusiastically suggested that we must contrive to have a system in which every village is self-sufficient. It is not clear in this case whether village self-sufficiency means that the income and expenditure of the village must balance year by year. Reference, in this connection, to the continuous increase in the debts of the rural population suggests that the meaning above is probably implied. If it is so, then, this ideal is only an enlargement of the ideal of profitable family holdings calculated to put the farmer's family in yearly comfort. The ideal is thought of on a village scale instead of on a family scale. But, if it means that every village should have all its requirements satisfied from the village produce, it becomes in fact a cry for a return to the medieval order of society, and as nobody but the most ignorant would advocate such a reversal of the historical process, it need not be discussed here.

There is, however, another variety of the ideal of self-sufficiency which is being sometimes voiced in responsible quarters. It takes the form of what is called 'regional self-

sufficiency'. This ideal is often advocated vaguely in relation to the federal political structure of India. Recent discussions on planning have revealed that every federating unit in India may be desirous of developing all the major industries including agriculture in such a way that it becomes a self-sufficient unit. The Federating units are assumed to be more or less coterminous with the existing administrative provinces. The federating units may not, however, be the same as the existing administrative provinces in a free federal constitution. The provinces are likely to be redistributed on a linguistic basis. But, whether they are like existing provinces or like the linguistic zones, it cannot, by any stretch of imagination, be said that each unit is endowed with all the natural resources necessary for enabling it to subsist by itself. The cotton soil region of the Berars will continue to produce cotton and to exchange it for food. So will Bengal produce jute and Assam tea. Federating units can legitimately aspire to develop economically so as to be on a par with one another, and the federal government would be justified in promoting the development of backward units so as to bring them on a level with the most advanced units, and, thereafter, to keep the pace of the development of all even. But the aspiration of a federal unit for economic development with a view to securing the capacity of wealth production on a par with others is not the same as the aspiration for economic self-sufficiency or, for that matter, self-sufficiency even in the matter of food supplies. The desire for regional independence in the matter of food-stuffs is the direct outcome of the policy recently followed by the Punjab government in the matter of releasing the surplus food-stocks of the Punjab for the benefit of the starving provinces. If in future the Punjab does not form a part of the federation but falls out as an independent state, the rest of the federated India may, of course,

be justified in securing internal adequacy of food supplies. But, if the Punjab remains within the federal structure, the duty of getting the Punjab surplus released, in war emergencies, for the benefit of other units falls on the federal government. The federal government would, if it follows the policy of regional self-sufficiency, make every region the poorer for it. A federation would always, on the other hand, gain economically, if it allows territorial specialization within its boundaries and concerns itself mainly with promoting equal development of all units, and would be economically on a lower level of development if it tries to make each unit self-sufficient. For the country as a whole, therefore, regional self-sufficiency in the matter of food-stuffs is not desirable, and self-sufficiency, in the matter of all goods necessary for a civilized life, impossible.

This leads us on to the question of national self-sufficiency. If this doctrine is to be adequately discussed a reference to the past course of historical development is inevitable. The transition from savagery to civilization in all human societies is marked by increasing specialization of functions and of division of labour. Division of labour is the first technical advance which makes for a social life of abundance in place of a life of want and scarcity. This single fact of division of labour imposes on the members of the community the necessity of mutual dependence. Abundance and interdependence are related to each other in the nature of effect and cause. Men differ from one another in their aptitudes and capacities, and division of labour alone opens the way for socializing the benefits of the diversity of human capacities. As men differ from one another, similarly, different areas of the world also differ in their possession of natural resources. Territorial specialization and exchange are thus the only means by which the social life of

different communities can be enriched. The historical development of inter-personal and territorial division of labour only illustrates the general law of progress towards a civilized life and a life of abundance. In this light no one can continue to be civilized by reversing the process in the direction of self-sufficiency. No man, no village, no region, no nation can be self-sufficient without, at the same time, becoming, economically and culturally, the poorer for it.

But, if this is so, why does the doctrine of self-sufficiency thrive ? For it is a matter of common knowledge that this doctrine has seized hold of the mind of many a thinking man and woman. Regional and national policies are being shaped on this basis and the march of at least some communities and nations seems to have been reversed in the interwar period. Fundamentally, if all men, communities and nations share equitably in the benefits of a fuller and a more abundant life there appears to be no rational justification for this retrograde movement. The cause may thus appear to be in the possibility that the benefits of abundance are not shared in the same way as work is shared. That is to say men and communities will resist the process of inter-personal and territorial division of labour if they are not parties to the benefits arising from the process. Private appropriation of these benefits has the tendency to encourage resistance to the process. There is the advocacy of village self-sufficiency because the rural population cannot share the benefits of division of labour though it performs the requisite labour falling to its lot. Regional self-sufficiency is needed because, otherwise, the Punjab attempts to benefit by its possession of surplus grain. India resists free trade because other nations appropriate the benefits arising from it. The self-sufficiency doctrine is thus the direct out-

come of popular resentment against actual exploitation and the fear of potential exploitation.

But the doctrine of self-sufficiency, once it seizes the minds of men, does not merely stop at accomplishing economic isolation. Fuller life is difficult under international free trade because it leads to exploitation. But the desire for a fuller life is always present. It can be only fulfilled either by practising exploitation ourselves or by forcibly overcoming exploitation, and thus establishing a system in which the benefit of the process of division of labour is received by all. The first method leads to imperialistic expansion through fascism and the second leads to socialism. There is a third type of development also possible, and this lies in a deliberate attempt at abandoning the desire for a fuller life in the form of the doctrine of asceticism. This last remedy has been tried several times by the world's greatest saints. But the progress of humanity has been unmistakably in the direction of a fuller and ampler life. The first was tried in the most ruthless fashion in the inter-war period and the ghastly results and lessons of it are before the present war-torn world, written on the wall. The second solution only affords a chance of success and of unhindered progress. International division of labour under an international system, purged of all the elements of private appropriation and exploitation, will create conditions of stable progress. This is the direction in which, in fact, the world forces and the forces in every country are moving.

IV

CONTROL OF TRADE CYCLE

Let me turn to another and a very important aspect of the question as it is presented in the last three sections. In

adverting to the goal of the government of India of increasing the production of food-stuffs and other crops I referred to the possibility, in the near future, of a relative glut in the market. This will clearly manifest itself in a serious fall of agricultural and other prices. This side of the question appears to have been only recently referred to in the government discussions on planning. The Indian economists' discussions of the problem and of their ideal of profitable family farms do not seem seriously to touch the problem except in what they have to say in the writings on the Indian currency management. When we come to the general question of national self-sufficiency the price aspect cannot simply be ignored. National planning for national self-sufficiency does, however, try to offer a solution for preventing a price fall. This it aspires to do by controlling all aspects of the national economic life.

In this connection the cyclical fall of agricultural prices is given the greatest attention, as distinguished from the fluctuations in relative prices. This is rightly so because the cyclical fluctuations are really what matter for the interests of the national economy as a whole. Let us, however, see how the question of cyclical fluctuations in prices is viewed and analysed when national planning for national self-sufficiency is advocated. The furious polemics of the last two decades have not produced any agreed theory of the trade cycle phenomenon. That it is inherent in the capitalistic structure of society is admitted ; that, once depression sets in, a vigorous intervention of the government is necessary is also admitted. But this is probably all that one gets out of the mass of literature on the subject. There is, however, one aspect of the cycle which demands serious notice. Trade cycle is an international phenomenon, so that, when once the crisis sets in anywhere in the

capitalistic world, it spreads everywhere and reaches all countries. It is the fear of this contagion of crisis and depression which has strengthened the argument for national self-sufficiency. Shut yourselves off from economic ties with the world, as far as possible, by tariff barriers ; insulate your economy, and you can be safe from external shocks. And this is, in fact, what many countries tried to do.

The international system, however, which had grown for over three centuries, could not be broken. Every country has external markets which it cannot forego except at serious sacrifices to itself. The attempt at national insulation was, in the very nature of the process, only a one-way insulation. 'Raise tariffs and shut off outsiders, but preserve external markets by competitive exchange depreciation and spheres of influence.' That all this led, in the end, to the world's greatest economic debacle—depression—known in history is now common knowledge. Attempts at preventing depression from occurring only intensified the depression.

But, apart from this, the crisis and depression are evils of the system itself and, hence, they are bound to arise even in a single insulated economic community as long as the system continues. National planning in a capitalistic economy cannot eliminate crisis and depression. What it can, however, do is to enable the national authority to take vigorous and effective measures in mitigating the evil consequences of the depression when it sets in. Fixing costs, fixing prices and fixing profits by law and attempts at maintaining them by executive action are some of the measures taken. However, none of these measures can offer any adequate solution because they go against the very laws by virtue of which the capitalist system draws its breath of life. The national authority can only temporarily

save the system by a planned government investment. But what are the channels of this investment? The last ten years of German history give only one answer and that is—investment in war. This then is how price-fall and depression are got over. Prepare for war!

V

SCIENTIFIC AGRICULTURE

It is time to pick up all the threads of the foregoing discussion. We see that, as the ideals of increased production, profit-making family farms, national self-sufficiency logically arise in threatening succession, we are faced with economic backwardness, in which scientific advance cannot be used for creating plenty and the greater abundance of international division of labour and exchange cannot be shared. And, what is worse, crises, depressions and wars attack the system periodically and annihilate all chances of progress. Progress lies in that direction in which forces are released for a continuous scientific advance in all fields, its continuous application in all economic spheres and in which all the countries and classes of the world share in the abundances secured from the most effective use of the diversified capacities of the areas of the world and of the men and women inhabiting those areas. The historical course of events shows that the different parts of the world are slowly, haltingly and even with periods of temporary reversals, but nevertheless, unmistakably, moving in this direction. Any ideal then which runs counter to this general movement is bound to lead us into blind alleys, crises, wars and depressions. Its content, method and meaning can lead to socially desirable results only in case it conforms to the general pattern of world progress. What then should be our aim or set of

aims when we are on the eve of embarking on a great social adventure for the economic betterment of this country?

In the light of the preceding discussion we can only tentatively define our aim or aims, in regard to agriculture in India, in the following way. We desire that our agriculture should be capable of using all the available scientific knowledge relevant to it continuously. It should not be subject to the evil effects of price collapse and depression. At the same time, we should be in a position, continually, to partake in the world process of international specialization, and to partake in the benefits arising out of it. Defining our ends this way makes them conform to the world process. These aims cannot, however, be realised within the present social context in India as well as in the whole world. It therefore becomes necessary for us to attempt to do whatever is possible under the circumstances so as to modify it in the desired direction. What would all this mean in actual practice?

In the first place, the programme of long term planning for creating a structure of profitable family plots must be abandoned. Secondly, long term planning for national self-sufficiency in all respects as well as in the matter of food-stuffs must also be abandoned. Thirdly, planning should attempt to force the pace towards a wider and more effective sharing of abundance. And fourthly, planning must foster and accelerate the process of social changes which ensure the effective sharing of abundance. This means that planning itself must be democratic. We must not, however, forget that we are a part of the world system. The picture it presents to us at the present moment is one of mixed hope and fear ; hope because a new social system seems to be getting evolved in different countries in which exploitation and the private appropriation of abun-

dance are likely to be eliminated, and fear because the reactionary past is trying its best to preserve the old patterns, and may unfortunately succeed in so doing. In such a state of the operation of conflicting forces our country may come under the influence of the second force. Therefore, it devolves on the thinking men and women of the country to help the progressive forces in doing whatever is possible to keep the national development in the right direction. Propaganda must, in such a situation, concentrate on the superior value of democratic planning with the long term objective of sharing in the world plenty and in the world scientific advance.

I have tried to give so far a proper perspective to our planning programme in agriculture by clarifying our long term objective. A world is, however, necessary to show where and how we can begin the efforts.

I must, at this stage, draw the attention of the reader to one very important aspect of the agricultural industry in relation to the general economy of the community as a whole. Every scientific advance applied to the agricultural industry would result in a vast amount of saving in the resources which are at present used in agriculture. This is because the community's needs in regard to food-stuffs do not increase in the same proportion as the needs of industrial products. The area devoted to the production of food-stuffs may not have thus to increase. Moreover, the application of science would save a large amount of human labour and even capital equipment. Indeed, even the area under food-stuffs might actually decline. All this may necessitate the transfer of the saved-up resources to the production of industrial crops and raw materials and to the manufacturing industries. Planning introduced with a view to promote scientific farming will have, in this case, to be

allied to the general question of crop planning and industrial planning for the whole country. Full democracy should prevail within every large scale farm. But the farm itself, in so far as it touches the work external to it, will have to form a unit in the whole process of nation-wide planning. In the latter case the farm units in agriculture and the industrial units in other spheres will all have to determine together what part they will play in the total economy and what portion of the plan each of them will execute.

Scientific farming would necessitate the reforming of the relations between the various sections of the agricultural population. The time-honoured relations of landlords and tenants, proprietors and landless workers etc. will have to give place to a new set of relations. How this can be done, without radically altering the existing material interests in land, the following chapter will seek to show.

I have said that, for the national planning to have a proper social setting, planning must be democratic. It is necessary to show how a democratic planning will create the necessary social context in which the plan itself will have an assured chance of success. So far as the agricultural industry goes, the planning process must have, if it is to be democratic, the active and willing co-operation and consent of the parties who are affected by the planning. The method of planning, the objective of planning and the control of planning must all be determined by the rural agricultural population as a whole. The big landlords, the middle peasants, the poor peasants, the tenants and the landless agricultural workers must, all of them, take part in the formation and the execution of the plan. This will firstly require the initiation of an education process which demonstrates the superior value of planning in terms of material

abundance. Secondly, it will require an alteration in the existing productive relationships of the various sections of the rural agricultural population. However, the change contemplated by the second step can be initiated only after the first step of the education process is complete. Otherwise, a good deal of the work is likely to be wasted. Planning thus involves the co-operation of all the parties concerned in determining the objective and in the execution of the plan in achieving that objective. In agriculture this, by itself, would constitute a cost-reducing process. In place of the prevalent method of small scale individualist farming would come into existence large scale farming. All the advantages of large scale farming would go to reduce cost, and the stage will be set for introducing any number of scientific methods so far known in the farming business. Waste of resources would at once be checked. It would then be possible for us to produce any quantity of produce that we want. The targets regarding the quality and quantity of produce can then be easily determined and worked for.

CHAPTER II

Co-operative Farming

I

REFORM OF TENURES

This chapter deals with the explanation of a part of the scheme of planning the agricultural industry in India. It is concerned with the re-organisation of all rights and privileges in land with a view to facilitating the transition from small scale farming to large scale co-operative farming, and with an explanation of the benefits likely to arise from the scheme developed here. It does not propose any abrogation of the rights to private property, though it does contain suggestions for controlling the use of the property in the interests of efficiency and progress. It tries to introduce, to the greatest extent possible, a democratic control over the farming business, so that, those whose rights and privileges are affected by the scheme have every opportunity to make their opinions heard, and to guard their interests. I hope, therefore, that I shall not be accused of putting forth before the public extreme measures.

Existing tenures

Land tenures in Indian agriculture are most varied and complicated. There are, broadly, three types of tenures viz. (1) the Zamindari system, (2) the Mahalwari system and (3) the Ryotwari system. In every province one or two of the

three or all the three types of tenures are found. In addition to this, a large number of superior and inferior rights in land have developed as a result of the operation of various factors. These rights have a reference either to the ownership of the soil or to a share in its produce or to labour on the soil. It is impossible and unnecessary to enter into any description of these rights. It is enough for our purpose to note that, for the proper operation of these rights and privileges, every provincial government has established an elaborate system of records of rights and of land administration. The judicial system of every province is also largely engaged in dealing with the issues arising out of these complicated systems. Further, the principles and practices of assessment of land revenue differ from province to province. There is no uniformity of assessment even within a single province. The result, therefore, is that the provincial administration of the executive and the judiciary is largely burdened with the necessity of operating a top-heavy system of rights and privileges.

Federalise agriculture

The most immediate and urgent reform necessary in this connection is a change in the constitutional law of the land which has made agriculture a provincial subject. If the recent occurrences like the famine have any meaning and a lesson, it is fundamentally this that an industry on the efficiency of which depends the very life of the nation cannot be the subject of fifteen independent and conflicting controls. Agriculture, therefore, must be made a central subject. When the subject of agriculture is transferred to the Federal Government for administration, its first primary task will be to simplify the whole system of land tenures, and then take up the problem of its re-organisation.

Re-define rights

All rights and privileges on land ultimately reduce themselves, one way or the other, to two categories namely, the right of acquiring the whole or part of the surplus produce of the soil called rent and the right to labour on the land and secure wages. It is necessary for the Federal Authority to re-define all rights in terms of these basic categories. When it accomplishes this purpose other questions of re-organisation can be taken up.

II

REFORM OF THE SCALE

Basically the agricultural industry of India suffers from three major drawbacks, which are hampering its progress and productive efficiency. They are firstly, the microscopic scale of farming caused by the tendency to subdivision and fragmentation ; secondly, the dependence of the crops on the uncertainty of rain-fall, and thirdly, the wide fluctuations in the prices of agricultural produce with a greater tendency towards a fall of prices (barring the present period). All other evils like indebtedness, defective marketing, inefficient labour etc. are only subsidiary to the three primary drawbacks mentioned above.

Present scale

The net area under cultivation in British India is about 210 million acres. Exact figures of the area under cultivation in the Indian States are not available. We can however roughly consider 250 million acres as the net cultivated area for the whole of India. More than 250 million people get their living by being engaged in the cultivation of the soil. The

proportion, therefore, roughly comes to one acre per individual. If an average family is assumed to consist of five persons, there would be nearly 50 million families living on agriculture as their sole occupation. All families however do not own land. It is estimated that roughly forty million persons are merely landless labourers while the rest own plots of land of their own. The tenancy legislation in all the provinces has, however, created permanent rights of cultivation in favour of a large number of landless tenants. It would thus be possible that every cultivator's family has, on an average, a five acres piece of land under its ownership and cultivation or only under its cultivation. A vast number of plots or holdings are much below five acres, while a few landlords possess hundreds or even thousands of acres.

Subdivision

Holdings are usually subject to three types of economic processes. They are continually getting subdivided and fragmented. On the other hand, they are also, in some cases, getting consolidated and enlarged. But the first process is more pronounced, so that, by and large, holdings have a tendency to become smaller. Thirdly, they are oft and on, passing in the hands of richer cultivators or moneylenders. But the rich cultivators' lands as well as the moneylenders' lands are subjected again to the process of sub-division and fragmentation. Economically, the scale of farming throughout India is, in this way, very small. The combining factor units in almost all cases are four to five acres of land, four or five family members of the cultivators as workers, a pair of bullocks, a plough and a few other agricultural implements. Frequently, where the plot of land is smaller, neither a pair of bullocks nor a plough is owned by the cultivator. At the time of ploughing,

the necessary equipment is often-times borrowed from bigger families. There is a considerable amount of co-operation among cultivating families for using each other's labour and capital equipment, including the bullock carts especially for harvesting purposes.

Reforms introduced

The provincial departments of agriculture and co-operation have, during the last forty years, tried to introduce a variety of reforms ranging from the improvement in seed to the consolidation of holdings, wherever they happen to be fragmented. The co-operative department has also tried to introduce some features of large scale industry in agriculture, through the introduction of co-operative credit and marketing. But this piecemeal application of the large scale principle has not been allowed to touch the basic factor of production. It is in this connection, therefore, that sweeping reforms are necessary in order to convert small scale farming into large scale farming.

Method-purchase

The scale of farming can only be enlarged by putting together a large number of individual holdings, and by cultivating them jointly as large farms. One method of achieving this objective is to buy over the requisite number of adjacent plots severally owned and to put them under a single ownership and management. This process would require millions of rupees worth of capital for the whole of India. For creating a large amalgamated farm of one thousand acres this process will require Rs. 5 lakhs at the rate of Rs. 400 per acre. Furthermore, if the farm, thus created, is to be cultivated on new lines, a large amount of fixed capital in the form of tractors, sowing and reaping machines, farmhouses, wells, fencing, em-

bankments and bunds would also be required, in addition to the working capital for seeds, manure etc. The creation of such a farm would involve the abrogation of tenancy rights and the creation of unemployment among those whose lands are bought off. This method has, therefore, to be ruled out as an impracticable proposition.

Co-operation

The second method is one of joint farming. It can be defined as farming of a large number of separately owned plots jointly by all the owners and tenants together. It would involve the elimination of all the boundaries demarcating the separate holdings and their consolidation in large farms. The creation of such large farms clearly requires a separation between the ownership of land and its actual private possession. The peasant-owner, instead of possessing a single specific plot or scattered plots, would have to be satisfied with owning a defined share of the total farm, and with the annual receipt of a definite value return from it. This right would be of the same order as the right to dividend on a share in a joint-stock company, though, unlike the joint-stock company, the labouring owner or the landless tenant would enjoy also the right to labour on the joint farm. Such an organisation would be similar in type to the collective farm of owner-producers in other countries though it will involve some major differences also. The joint farm should be called a co-operative farm corporation.

Precept and example

The most democratic method of establishing a co-operative farm would be one of creating the necessary will for it by persuasion on the one side and example on the other. The Government or the semi-government agency which is entrusted

with this task of creating the requisite psychology will have to demonstrate its utility by quoting the experience of other countries. Legal assurances will have to be given, by which a return to the old system will be made if the scheme proves unsatisfactory after a five years' trial. Side by side, experimental work on government-owned waste but cultivable land will have to be undertaken. For, the best method of bringing into existence the requisite will to co-operate, is to show the benefits of the scheme by actually adopting it on the cultivable waste land. Once the benefits are realised the cultivators would come forth of their own accord to undertake co-operative farming. Then the movement would gather momentum.

While I am making the suggestions given above I am acutely aware of the enormous difficulties involved in the process of educating the rural masses with a view to prepare them to accept the introduction of large scale co-operative farming. The greatest obstacle in the way is the farmers' psychology. The farmer is attached to his land with a tenacity which has no other parallel in the world. Land is his very means of livelihood. It is the only means on which he can rely. Amidst all the adversities of his life the only unfailing friend of the cultivator is the 'mother earth'. Every thing else he distrusts, and there are very solid reasons why he does so.

The farmer is exploited from all sides. The moneylender robs him of his meagre earnings. He is the farmer's constant enemy. The lawyer robs him whenever the farmer has occasion to go to the court to settle boundary disputes. By the time he gets justice, if at all he gets it, he is 'bled white.' The revenue officers and the petty village officials rob him almost as a matter of right. Even the so-called social reformers have often exhibited a tendency to cheat the cultivator.

His psychology of distrust is formed in this way out of his daily experiences. The education process must, therefore, begin by concentrating all the attention on the removal of this distrust.

Clearly, this work cannot be given in the hands of the officials drafted from the existing bureaucracy. The government official is the first person who has largely contributed to the feeling of the farmer's distrust. The work of education has, by the very necessity of the case, to be expected only from the persons who enjoy the fullest confidence of the peasantry. Such persons can be found only among those who have spent months and years of their life's work among the farming community. They alone can be expected to guide the farmer's mind fully to the benefits of abundance arising from large scale farming.

There is, in my opinion, every likelihood that the landless tenants will be easily persuaded to accept large scale co-operative farming. They have no lands of their own and they are exploited the most. The real trouble would come from owner-cultivators and landowners possessing large holdings. But their unwillingness will have to be overcome by patient and sustained propaganda. Demonstrations of the advantages actually enjoyed by the participants in the experimental co-operative farms will help a great deal in this work. That is the reason why they have to play the largest role in combating the conservatism and immobility of the farmers in India.

The government will have to follow the most liberal policy towards the rural masses. This is possible only if it is a popular government elected by the people. Those who are elected to the legislatures and are, through them, drafted into the executive will have to maintain contact with the rural areas.

The traditional aloofness of the government from the peasants, broken only by occasional and oppressive visits of the revenue officials, will have to give place to a spirit of real cohesiveness between the government and the people. These mainly are the conditions of quick and complete success.

III

SIZE AND CONSTITUTION

It would be difficult to give a straight rule of thumb in regard to the size of a co-operative farm. A large number of technical considerations are here involved. Large scale farming has to be introduced mainly for opening the way to the introduction of mechanized methods of the most modern type. These methods are, in themselves, not given once and for all, but are changing with every advance in the technique of production. The most important work in farming at present is of ploughing the land.

This is being done in advanced countries by means of tractors. A tractor has, on an average, a capacity to plough from 300 to 400 acres of land in one agricultural season. One could, therefore, usefully begin with the creation, on the cultivable waste land of the Government, of plots of this size in all the provinces and in as many places in each province as possible, and then introduce mechanized farming on them.

Membership

The constitution of the co-operative corporation would have to be drawn on a different principle from that which is adopted in the case of joint stock companies. Every person who possesses a legal right, either to the land or to its produce, or the right of labouring on the land, should, *ipso facto*, be a member of the corporation with a right to vote. This results

in a flexibility in the number of members. Tenants with permanent rights of cultivation bequeath their membership to their sons. They must have also the right to relinquish their membership, if they wish to take advantage of a more remunerative work which they may stand to secure elsewhere. The corporation must be under a legal obligation to accept as a member any customary or mirashi or vahivati tenant if he insists on it. But such obligations should cease with the voluntary resignation of a tenant. Once a tenant resigns, his sons should also cease to enjoy the right of membership. Tenant members should enjoy the right to vote and the right to labour on the land. The right to wages follows from the right to work. The owner-cultivators should have the right of membership involving the right to vote, the right to labour and wages and the right to rent according to their contribution to the capital. If an owner-cultivator renounces his right to work he should not again be eligible for the right to work or to wages. His rights would then be reduced to rent and vote only. The non-cultivating land-owner should have only the right to vote and to rent. Any transfer of property rights should involve the transfer of the rights to vote and to rent but not the right to labour and wages.

The membership of the farm corporation would thus consist of two types or categories. The first category will consist of those who become the stockholders of the corporation, by virtue of their contribution to the corporation of capital in the form of land and other equipment. The second category would consist of those who have no lands of their own, but who have some sort of recognised right relating to the land. The first type of members would be stockholders. The second type would have no stock to hold. But they would have a

right to labour on the soil. Owner-cultivators will have a stock-holding as well as a right to work. Big land-holders would only be stock-holders. Every member must have only one vote, whether he is a stock-holder as well as a holder of the right to labour or merely a holder of the right to labour. The adoption of the principle of minutely divisible stock would make possible the division of the stock and of the rental income on it among the surviving heirs of a deceased member. This would, in consequence, conform in substance to the existing system in which a holding is divided among the heirs of a deceased owner.

A word of explanation is necessary here to show why even the tenants not owning any land and therefore becoming members of the second category only should have a right to take part in forming decisions. At present, the tenants secure lands for cultivation from the land-lords on contract, and much of the burden of risk-bearing devolves upon them. In a sense, therefore, they are the entrepreneurs, and in that capacity make decisions and carry out duties. In their new capacity as partners in the co-operative venture, though they do not contribute fixed or working capital to the enterprise, they must continue to enjoy the right of contributing to the decision-making, which they have enjoyed so far. Tenants are, by profession, farmers. They have acquired, through inheritance and practice, agricultural knowledge which would be very useful. Hence, they must have a right to vote in common with the landlords and owner-cultivators.

Technical and other decisions

It is easy to see that a large number of decisions would be of a technical character in the making of which it is best to rely on technical advice. The distribution of the various

portions of the amalgamated farm among different crops partly depends on the nature of the soil and climatic conditions, and partly on the market demand for the products of the farm. Some area may unreservedly be used for the needs of the members and their families. Food crops, vegetable and garden produce, condiments, fruits etc. for the use of the members will require some area of the land or the reservation of a part of the produce from the annual harvest. The decision here is easy. Further, some provision would be required to even out the changes in the annual yield, after taking into consideration the famine, the semi-famine and the prosperous years. The rest of the area could be advantageously used for meeting the market demand. The reading of the market demand is an extremely difficult matter. For, in this respect, it would be wrong to go merely by the prices prevailing in the preceding season. In my opinion decisions regarding what to produce over and above the requirements of the members may be left to an all-India body, which should year by year, ascertain the urban and foreign demand for the agricultural produce, and should, on the basis of its estimates, allocate quotas of production to each of the co-operative farms. Any produce in excess of the urban and rural needs will have to be exported, while any deficiency will have to be made up by imports. There would have to be some permanent improvements made on the land in the form of boring wells, bunds, embankments, levelling, fencing, farm-houses, storage facilities etc., which have to be ascertained according to the requirements of each farm. Further, in the day-to-day running of the farm, a number of decisions have to be taken for distributing the work among farm-workers, and regarding the nature and the amount of manure, the distribution of water-supply, disposal of waste, etc. All of them are of a character in which primarily technical

considerations are involved. The decisions in which technical considerations are absent are related to the questions of wages and rents and their variations, disposal of the surplus profits, hours of work, holidays, provident fund, bonus and reserves. In their case all should have a right to vote.

Capital and stock

The initial capital contribution should be in terms of pieces of land and other capital equipment valued on the rental basis (say the average of a decade) of each privately owned piece, and the market value of draught cattle, plough-shares, farm houses, wells, embankments and implements. Stock of the value, which each co-operating member contributes in terms of the equipment mentioned above, should be allotted to each such member in proportion to his original contribution. Thus, if one member contributes land worth Rs. 10,000 and other capital equipment to the tune of Rs. 2,000 his stock should be Rs. 12,000 worth. If his farm and equipment are giving a net return of Rs. 360, the value of his land and equipment, on the basis of a rate of interest equal to 3 per cent, will just be equal to Rs. 12,000. If the person subsequently dies, leaving four sons, the stock can be divided among them equally so that each son owns Rs. 3,000 worth of the stock.

Past debts

The association or co-operative corporation cannot, of course, start by acquiring only unencumbered estates. The total encumbrance of debt and the share of each member in it should be initially ascertained. A detailed inquiry should be made as to the amount of the debt which was actually invested in the land. All the rest is consumption loan, which can be saddled on the rents and wages of the respective members.

The productive loan will have to be taken over by the co-operative corporation. During the first five years of the working of the co-operative corporation a moratorium may be placed on the payment of interest on and capital of the consumption loan. I expect that within five years there would be such an increase in the productivity of the farm that a repayment, by instalments, of the capital and of the interest on the consumption loan can be easily arranged over a period of years out of rents and wages.

IV

PROCEDURE OF BUSINESS

The corporation members must meet at least twice for every crop. If the number of crops is three they would have to meet six times in a year ; if only one, they would meet twice a year, that is to say, once at the ploughing time and once after the harvest time. The first meeting should be devoted to the consideration of allocating parts of the farm to different crops, for apportioning labour and fastening responsibilities and for giving effect to the recommendations of any supervisory body in regard to the actual productive and accounting work. The meeting after harvest should be held for considering the results of the work and comparing them with the target aimed at in the beginning, for considering the profit-and-loss account and for electing the office-bearers.

The day-to-day work should be conducted by an elected committee consisting of six to eight office bearers, each responsible for supervision, direction and control of the various operations involved. This committee should be assisted by Government officers in a large number of technical matters like rotation of crops, fertilizers, irrigation, marketing, cattle-breed-

ing etc. The yearly business accounts should be audited by a Government officer jointly with some prominent working members. Both of them should jointly submit a report to the corporations and to the Government.

V

ADVANTAGES

1. Elimination of subdivision and its waste

Several far-reaching advantages can be claimed from the introduction of co-operative farming. The first advantage is the permanent elimination of the tendency to sub-division and fragmentation of land holdings in India. This is achieved not by destroying the rights and privileges of either the landlords or the owner-cultivators or of the tenants. These rights would be preserved even for future generations. The stock claimed by a member of the corporation at the time of its original formation is available for sub-division. From generation to generation it may get sub-divided according to the number of heirs at each generation. But the land pieces amalgamated under the co-operative corporation would not be touched. We shall, in this way, introduce large scale farming in place of the small scale farming which has been the characteristic feature of Indian agriculture from times immemorial. The evils of sub-division and fragmentation, as manifested in the wastage of land, labour and capital equipment would be eliminated. This, in itself, is no small gain, even if mechanized processes are not introduced. Agricultural produce is already more or less standardized. The cultivation of standardized crops like cotton, wheat, rice, millets, pulses and other major agricultural products on a large scale is thus possible by devoting large areas to every particular variety.

2. *Rationalization of labour*

Agricultural labour can be rationalized on scientific lines. At present, every owner or tenant has to undertake all the functions involved in the agricultural business. The inborn and acquired powers of individuals, which are available for small farms only, would be taken advantage of by large areas. Some farmers may be good at some jobs and others at other jobs. Under the existing system a particular farm may get only one type of advantage while some farms may be wholly worked up by men inefficient in essential matters. All being poor, no one is in a position to requisition the services of experts in any field of activity. Under joint farming all the advantages can be pooled and their use generalised. This is true not only of the labour but also of capital equipment. Irrigation facilities in the form of wells and embankments or bullocks are at present available only for some farmers even though they are ample enough to extend the advantage of their use to others. They can be used for the benefit of all. Even if mechanization is not introduced the tremendous advantages of co-operation will benefit agriculture in a way hitherto unknown.

3. *Mechanization*

But large scale farming opens up the prospect of mechanization. All kinds of machines, at present being used on farms in capitalistic and collectivised farming in other countries, can be introduced in India also. The use of tractors would make possible deeper and a more extensive ploughing of the fields with much less human labour, and would help the process of natural re-fertilization and hydrogenation, thus increasing the yield of crops per acre. It would eliminate the waste and destruction of crops by farm cattle. The mechanization pro-

cesses adopted in other countries will have to be minutely studied and adapted to Indian conditions in dry as well as wet farming. Mechanized farming is supposed to be technically possible only in dry tracts. In wet tracts in which rice cultivation or the cultivation of other crops takes place tractors cannot be used. Nevertheless, cultivation on a co-operative basis would certainly make possible an immense reduction in costs. I do not so far know of any methods involving the use of large machines applicable to wet crops. Presumably, some progress in this direction has been made in advanced countries. This matter requires careful and detailed study.

4. Borrowing power doubled

One of the greatest advantages that can be claimed for co-operative farming is the virtual doubling of the borrowing capacity of the rural areas. At present the owner-farmer's capacity to borrow depends only on the value of his land, because that is the only security which he can offer to the money-lender. The money-lender usually gives a loan to the extent of 60 to 70 p.c. of the value of the land. The loan may be used for social or religious ceremonies or personal needs or repayment of old loans or for productive investment in land. Under co-operative farming the capacity of the farmer to have a loan for consumption purposes will in no way be reduced. When he hands over his land to the co-operative corporation he gets from it a scrip, called a stock, which entitles him to a certain amount of rent from the corporation. The value of the stock is equal to the capitalized value of the land surrendered to the corporation for common cultivation. It would any day be possible for him to mortgage this scrip or share to the money-lender or to a bank in order to get on it a loan to the extent of 60 or 75 per cent of its value. The whole of the loan

can be used for consumption purposes. The Co-operative Corporation on the other hand, which is primarily a business concern, being in possession of the land as its productive property, can, as an independent legal person, borrow money for productive purposes on the security of the land. This loan may amount to 75 p.c. of the capital value of the land and can be used for increasing the productive investment. To the lender this is an additional security. If the investment proves very remunerative the earnings will increase, and consequently the borrowing powers of the corporation as well as of persons owning rights in the land. For consumption loans the borrowing procedure will be greatly simplified, and if the rent received on the scrip promises to be regular and secure, the rate at which money can be borrowed will greatly fall. Being a reliable security, banks and money-lenders will be prepared and even eager to lend money on it, and also to buy it as a liquid asset. The flow of national savings will be diverted to the rural areas, and money rates will fall still further. (Parenthetically, it may be added here, in anticipation of what is explained subsequently, that a concrete scheme has been proposed for the purpose of stabilizing agricultural prices. This will reduce the rate by eliminating price uncertainty.) For the Co-operative corporation also the borrowing will be cheaper for the simple and obvious reason that its productive property would be very large. It would thus be a very sound party in the lending and borrowing transactions. Moreover, the loan required by such a corporation would be only for productive purposes. It therefore increases the certainty of interest payment and capital repayment. The total social cost of borrowing for the rural community as a whole will be greatly reduced. The business of banking in rural areas would require very much less local knowledge for its development. The necessity

of the money-lender will be eliminated, and modern type of banking would penetrate into the rural areas. The velocity of circulation of money would increase, and would cause the rate of interest to fall further by its increased momentum. The dominant feature of rural finance, namely, the high rate of interest, would disappear. At present, farmers have to compete with each other on unequal terms and their respective interest burdens are unequal. With co-operative farming the corporations will compete on equal terms.

5. *Farming on Business footing*

An equally great advantage given by co-operative farming is that agriculture in India, for the first time in the history of its career since the hoary past, will be put on a business footing. Under the existing arrangements the farm and the farmer's family are so mixed up in everything that it is impossible to determine either the cost of rearing the family or the cost of running the farm. Whatever goes out in money, labour and other resources happens for the farmer to be his expenditure, and whatever comes in is his income. If income is smaller than expenditure there is a debt, and if it is larger there is repayment of old debt. All this muddle has to be cleared up. There is at present a tendency among the enthusiastic rural workers and even among the economists to consider the farm primarily in relation to the farmer's family as, inevitably, the ideal human productive unit in agriculture. The so-called economic holding in the agricultural industry is supposed to be one which can maintain an average farmer's family on a decent standard of life. Apart from a variety of serious questions involved in this, the alliance between the family and the farm is fatal to the progress of the agricultural industry. With it, large scale farming and mechanization would be

impossible. As it is, the alliance of the two has kept agriculture outside the common notion of business. For the farmer this industry is only a way of life, and the only way of life. If and when the two are separated their budgets would be separate also, and whatever items strictly belong to the farm as business would be taken into account by the farming corporation. Accounting procedure would, for the first time, be adopted so as to facilitate the proper computation as well as the imputation of costs, and profit, as a business category, would emerge into consideration. A scientific accounting system alone would be conducive to economy, and would establish a proper relationship between costs and receipts. The industry would be firmly placed on a progressive basis.

6. Centralized control easy

The amalgamation of small farms into large farms and their conversion into co-operative corporations would greatly facilitate a centralized control on agricultural production which, under the present system of individual property possessions, is impossible. If the central planning authority wishes to increase the production of some goods and to diminish that of others the co-operative corporations are the only best agricultural units through which it can accomplish its purpose effectively. The first principle of planning is the establishment of the machinery of centralized control. Centralized control would be impossible where there are five million families, each independently managing tiny holdings and plots. Directions would be misunderstood or miscarried, evasions would be easy and frequent, and the machinery of control would be too heavy and expensive. The establishment of co-operative farms would reduce these innumerable holdings to manageable figures. It is necessary to realize the importance of effective centralized

control in any kind of planning. Co-operative corporations are the first indispensable steps towards the establishment of this control.

7. *Saving in government Administration*

If the agricultural department is transferred to the federal Government and co-operative farming is introduced, a large number of consequential administrative changes will have to follow. The whole record of rights office can go by the board, and in its place can come a small office with the duty of registering the co-operative corporations. The information collected in cadastral surveys may usefully be parcelled out among the corporations owning the relevant portions of land. Further, the entire land revenue collection machinery can go, and its place can be taken up by a small agricultural income-tax office, which would have to deal only with the co-operative farms. The whole revenue service can be scrapped, its judicial work transferred to the existing law courts, and its police work to the existing police organisation.

The transfer of the judicial work of the present revenue officers to the judicial department will not involve any increase in the work of the latter, because the creation of co-operative farms will have wiped out a large amount of civil work connected with disputes about land. All the enormous saving in expenditure effected in this way can be utilised for establishing a completely new cadre of service which may be called the National Farm Service. To this cadre must be recruited agricultural graduates, masters of agriculture and doctors. Their chief work will be to give all manner of technical assistance to the executive committees of the co-operative farm corporations. Recruitment to the cadre will have to be sufficiently large in number to enable each farm to have the fullest assistance and

attention that it requires. The member of this service should have the right of attending the annual or six-monthly meetings, as also the meetings of the executive committees to give them all manner of assistance. He should be the channel of communication between the All-India Agricultural Planning Commission and the farms in respect of yearly output plans and results. He should annually make a report to the farm corporation about the improvement necessary. The National Farm Service is the most important cadre which can be in direct and day-to-day touch with the agricultural industry. Its knowledge and experience will be the greatest of national assets. It will be the first service of its kind which links national welfare with national industry.

3. Revenue Administration Simplified

This brings me to the important question of land revenue which has taxed the brains of administrators and economists for centuries in India. In fact, revenue administration in India has been primarily concerned with the land revenue question. It is quite natural that this should be so, because upto very recent times, the major economic activity in the country was agriculture. It is so even now. Land revenue was the major source of income to the state in India from times im-memorial. Indeed, the state claimed and even now claims that it is the ultimate land-lord possessing the supreme right of ownership. According to the Hindu scriptures, the State is supposed to share ownership with the tiller of the soil. Under the circumstances, the question whether the land revenue is a tax or rent has been debated in official and non-official literature almost ad nauseam. The controversy has a great economic importance in that, if land revenue is rent, the state has a right, as per contents of the right of ownership, to claim it

from every holder of the soil irrespective of whether the holding is of five acres or half an acre. The question of the poverty of the land-holder does not arise in the eyes of law, in spite of the fact that 'taxes are paid by men and not by things.' If, however, it is considered as a tax, all the canons of taxation apply, and a large number of landholders would be exempt from it. The benefit would accrue to the people.

The proposal of establishing co-operative farming corporations which I have elaborated in this chapter renders all this controversy otiose. The farming corporations become joint business enterprises of the same order of importance as joint stock companies. They will have thus to be treated like joint stock companies for the purposes of taxation. The principles of the taxation of corporations can be applied to them. The limit of exemption from tax on incomes below two thousand rupees could be observed in their case if necessary. Co-operative farms being, however, of the size of four hundred or a thousand acres, the income of the farms is always likely to be above Rs. 2,000, exclusive of all costs of production. Individual shareholders can secure exemption from the taxation of their share incomes, in so far as the tax will have been paid by the co-operative corporations. Small shareholders, provided their income from labour and the shares together does not amount to Rs. 2,000, can, in fact, claim a refund of the tax in the same way as shareholders in limited liability companies. The whole of the income and corporation tax procedure could be bodily applied to this case. The work of revenue collection will be rendered very simple. There need be no periodic survey and settlement committees and reports and no 'anewari' system. Any improvement in cultivation will be reflected in an increase in the profit of co-operative farms. The revenue will

thus automatically increase and the present rigidity will disappear. The cost of administration will go down appreciably.

If the advantages of the exemptions granted under the income tax law are granted to the farm corporations and the farmers the land revenue receipts will greatly fall. To avoid the loss the rate of tax on land may be increased and individual exemptions abolished for some years.

9. *Other Advantages*

It is unnecessary to dwell on the other advantages of large scale farming. Production would of course increase much beyond the possible target which we may aim at under the existing organisation. But large scale farming would create a demand for a number of instrumental goods like tractors and other agricultural implements, building materials, etc. This increase in demand will open up promising fields of enterprise for basic and other industries. The establishment of tractor factories and other factories which the planning authority may contemplate can usefully be co-ordinated with the needs of agricultural planning. There would be other advantages also, but their consideration need not be taken up here.

The creation of co-operative farms and mechanized agriculture would inevitably produce certain adverse consequences of a very serious character. The unemployment and the consequent superfluity of cattle, the superfluity of labour, etc., are some of them. But these problems will have to be taken up by the national planning authority. It is easy to see however that so long as mechanization is not introduced in the initial stages, resources need not be rendered superfluous. I have already suggested that existing tenants should continue to enjoy the right of work in the farm corporations. They can continue

to enjoy this right until they get chances of more remunerative employment in the urban manufacturing industries. It will, of course, be necessary for the state to speed up industrialisation and to time its development in such a way that, when agriculture begins getting mechanized, the demand for labour for the manufacturing industries should rise. It is only in this way that the problem of the absorption of the surplus agricultural resources can be satisfactorily solved, without creating any serious dislocation.

CHAPTER III

Output and Prices

I

PROTECTION OF CROPS

In the last chapter we set out the first important step in the planning of agriculture. This first step is the re-organisation of the agricultural holdings on a co-operative basis. The suggested re-organisation preserves intact the rights and privileges connected with the property in land. But it separates ownership from possession. Ownership remains private under this form though possession becomes co-operative. This, by itself, constitutes a very great cost-reducing measure. It further opens up a large number of new possibilities of reducing costs. In this chapter we shall concern ourselves with the problems mainly connected with the control and regulation of output and prices.

Nature of uncertainty

These problems are important because on their solution depends the prosperity of the agricultural industry and the population depending upon it. The cultivator's life is full of all sorts of uncertainties. The yield of his crops fluctuates from year to year. It may be two annas in the rupee in one year or twelve annas in the following year. Broadly speaking, a bumper sixteen annas crop is only a rare fortune falling to the cultivator's lot. The yield depends upon the amount and

timing of rainfall. It is therefore a real 'gamble in the rains.' The cultivator also suffers from uncertainty of prices. These fluctuate from season to season and cycle to cycle. In addition to the fluctuations in the prices of his produce, there are also fluctuations in the cattle equipment of his farm. Cattle are liable to epidemics and other diseases. There is thus no stability in the life of the cultivator. His standard of consumption has to conform to the wide fluctuations in his income. In fact, he cannot be said to maintain any standard of life as such.

Remedy of Irrigation

The removal of all these uncertainties will confer on him the greatest boon of his life. Protection of his crop from the rains will introduce an appreciable measure of certainty in the yield of his crops. Guarantee of the prices of his produce will remove another uncertainty. The problems connected with the elimination of output fluctuations and those of price fluctuations do not stand independently of one another. Output affects prices and prices affect output. We shall, as we proceed, try to find methods by which both output and prices can be brought under the control of the planning authority. Crop-yields are liable to fluctuations on account of natural causes as much as on account of the purposeful action of competitive producers. We have therefore to eliminate the natural causes first, and then replace the unco-ordinated competitive, actions of independent producers with co-operation and a co-ordinated conscious direction of output. Let us at the outset turn to the first. The most important natural cause is the weather. Yagaries of the weather are not willed by anybody. Still they occur and produce serious consequences. The planning authority can therefore usefully start by directing their attempts towards devising measures for bringing the weather

factor under control. Rains are chronically deficient in some areas in India. They are also badly distributed in some seasons. Crops must therefore be made independent of rains by a large scale provision of irrigation facilities. In India the area irrigated by government canals and other irrigation works in the year 1938-39 was 33 million acres. The percentage of the sown area in British India irrigated in all ways was 24 in 1940. Of the remaining 76 per cent of sown area some parts possess excellent climatic conditions. The supply of rain-water in these parts is very regular. But in provinces like Bombay and C.P. and in many central Indian parts irrigation facilities are urgently required.

Advantages

It will be a great advantage if the irrigation facilities supplied are perennial in character. If they are perennial they will make it possible for the cultivator to reap two or even three crops during the course of a year. Agriculture will become a whole-year occupation, and not remain seasonal as at present. We shall have, in fact, solved, in this way, two problems. Protection of the crops from the vagaries of rains will firstly make agriculture a secure occupation and secondly capable of being practised all the year round. It is necessary to deal with the second advantage at some length. In many parts of India agriculture is a seasonal occupation. It is practised in some periods of the year. During the rest of the year, as the cultivator has no useful work on hand, he has to suffer from enforced leisure. His productive capacity goes to waste. The total wastage of productive capacity due to enforced idleness is enormous. It is, in the ultimate analysis, really a problem of partial unemployment or under-employment. Students of Indian agricul-

ture often deal with this question and suggest a number of remedies. There is however a tendency among them to treat the seasonal character of our agriculture as a permanent unalterable frame-work of nature or as a providential order which we have to accept. They try to consider the problem of under-employment, not with a view to alter the frame-work of nature, but mainly with a view to provide additional channels of employment in the idle periods of the cultivator. The provision of the requisite channels of intermittent employment fitting in the natural frame-work is thought of as a measure which provides a 'second string to the bow' of the cultivator. It is supposed that the provision of a 'second string to the bow' will enable the cultivator to protect himself from the evil effects of the uncertainty in agriculture. The emphasis is not placed on making agriculture itself certain and secure. Nor is the emphasis placed on the utilization of productive capacity otherwise going to waste.

FURTHER PROTECTION

In my opinion the provision of perennial irrigation will firstly make crops secure and render 'a second string to the bow' unnecessary, and secondly enable the farmer to cover his unemployed period with useful work. This does not mean that agriculture cannot be combined with other occupations. Such a combination would be of great advantage provided the occupations combined with agriculture have a natural affinity with agriculture. Cattle farming, dairy industry, etc., are such occupations. But, in such a combination, there is no question of filling the leisure periods. In fact, if perennial irrigation is provided, all occupations including agriculture and those having a natural affinity with it can be practised all the year round. Further, if the reforms suggested in other

parts of this book are followed, there will be such a saving of labour and other resources that no shortage of resources can ever be felt.

II

COTTAGE INDUSTRIES

The economists in India suggest the introduction of small scale cottage industries like basket making, carpet weaving, bamboo work, cane work, toy making and such other industries. They are not really seasonal in the sense that they can exactly fit in the natural framework. They can be practised all the year round. But the farmer would not, under that scheme, be able to practise them throughout the year. Indeed, if he were to do so, he would cease to be a farmer and become an artisan. From the viewpoint of efficiency the intermittent practice of these industries will not be conducive to the raising of productivity to the highest level. As a matter of fact, productivity will not be nursed either in these industries or in agriculture. Moreover, the waste of land in agriculture and of capital equipment in the cottage industries in their off-season will continue. Only, the farmer may find some work for his idle days. But even here his capacities will have no chance of improvement to the highest degree possible. Waste is thus not eliminated. Indeed, the problem is not considered by the economists in India from the viewpoint of optimum utilization of resources of all kinds. My plea therefore is that efforts should be directed towards making agriculture itself a whole-year occupation. My further plea is that occupations having a natural affinity with agriculture may be scientifically combined with it with a view to use up such resources as may be rendered unnecessary by the introduction of cost-saving mea-

sures in agriculture. So far as agriculture itself goes, all efforts should be concentrated on providing perennial irrigation wherever possible. There should, therefore, be no indiscriminate advocacy of cottage industries. It is quite possible, however, that, even after the greatest efforts are made to introduce perennial irrigation everywhere, some parts may yet require the introduction of cottage industries. But my suggestion is that the area requiring such introduction should be narrowed to the lowest limits.

III

PRICE STABILITY

I started with the problem of eliminating the uncertainty in the farmer's output, and in discussing the measures for this purpose, I have been able to show that they will not only make output secure but will also make farming a continuous whole-time occupation. It is now time to turn to the question of removing price uncertainty. At the outset I must make it clear that certainty in the matter of prices and certainty in the case of output do not have similar implications. Removal of uncertainty in price must mean in my opinion, the establishment of price stability. The farmer must be assured that he would receive a definite return for every unit of his output. This must mean stable price. Under price stability, so long as the farmer's output remains stable, his income also remains stable, and if his output increases owing to increasing productivity, his income would expand exactly in proportion to his output. In an expanding economy there is always the possibility that the output of agriculture will expand with every advance in agricultural technology, and it is desirable that the farmer should benefit by improvement in his efficiency. This

alone will keep up his incentive to improve his economic efficiency.

Certainty of output

Certainty of output under conditions of price stability would not only mean that there is always a correspondence between expected output and realised output but also that the expected and realised output is just enough to meet the demand expected to operate and actually operating in the market at stable prices. There should thus be a perfect equality between four quantities viz. expected demand, actual demand, expected output and realised output in relation to given prices. In a planned economy output would be planned every year. This plan would be based upon certain expectations of demand at the stable prices. And if the crops are secured from the vagaries of the weather there would be no difference between planned and realised output. The real question therefore is whether the planned output is in accordance with the demand likely to rule in the market, or, in other words, whether the future demand can be correctly foreseen. For, once the demand is correctly foreseen, the requisite output can easily be planned.

Causes of fluctuations: Demand side

It is supposed that, at a given price, demand may fluctuate owing to various causes. The most important causes are:— (1) changes in population, (2) changes in tastes, (3) changes in incomes and (4) cyclical changes in demand. The second cause operates not by changing the total demand for all agricultural goods but by changing the composition of demand. Some goods would be demanded in larger quantities, and others in smaller quantities simultaneously. Causes one, three and

four may change the total demand for all sorts of goods as well as the composition of demand. For example, an increase in population will increase the demand for necessities more than for luxuries, unless it is accompanied by a simultaneous increase in incomes. A decline in population will cause a decline in total demand and a qualitative change in it. A rise in incomes will increase total demand and shift it from inferior to superior goods. A fall will have the opposite effect. A cyclical change is of the same order as a change in incomes.

Their operation

A change in tastes would only change the composition of demand, but will not cause a rise or fall in total demand. It would necessitate mainly a re-adjustment of output, not a reduction or an increase. But, in the case of the other three factors, a reduction or increase in total output also would be called for. However, the capital equipment and other resources of an expanding and progressive economy are always geared for a continuous expansion in output. If now the operation of any of the three causes calls for a reduction in output the purpose of price stabilisation namely to ensure a nonshrinking but, on the contrary, an expanding income to the farmer would be frustrated. We shall have, therefore, to see how far the three causes would really operate adversely, that is to say, in the direction of reducing the total demand.

Let us examine the operation of the first factor, namely, changes in population. In theory, population can increase or diminish in any given period of time. However, in practice normally it tends to increase by natural growth. It would, of course, occasionally, diminish by epidemics and wars. War being an abnormal and preventable cause need not be taken into consideration here, when we are discussing principally

peacetime conditions. As for epidemics it can now-a-days be safely assumed that they have been effectively brought under control. It is not that they do not occur at all. But the prompt measures adopted by modern states reduce the incidence of epidemics almost to insignificance. There is however a third factor which operates on the numbers. In an advancing community the growth of population is deliberately checked by means of the use of birth control measures. However, this factor has, historically speaking, not yet caused any reduction of population as such. It has only slowed down its growth in some western European countries. Moreover, the effects of the deliberate use of such preventive measures are produced only over a long period. The possibility of a decline of population may, therefore, be ruled out of consideration. There remain, in this way, only two major factors namely, changes in incomes and cyclical changes in demand. Cyclical changes in economic activity cause a fall or a rise in demand by reducing or raising incomes. Changes in incomes of the population, aside from cyclical changes, are only of a secular character, and in secular trends exhibited by modern societies there is no phenomenon of a fall of incomes but only one of a rise in incomes. The major cause of a fall in incomes therefore is the occurrence of a crisis and its development in a depression.

Remedy—price stability

What then is the way out of a cyclical fall in incomes which may necessitate a reduction in output? It may be pointed out at once that the most effective way of preventing a fall in incomes is price stabilization itself. If prices are stabilized the incomes of farmers forming the bulk of the population of India will cease to fall. On the contrary, they will

rise with every increase in output. This is because prices of the farm-products themselves constitute the incomes of the farmers. With expanding incomes the farmers' expenditure on industrial products must increase. It will never have any occasion to fall. The sector of the total economy made up of the manufacturing industry of the country will, therefore, automatically benefit from the device of price stabilization applied to agriculture. The tendency of the occurrence of cycles in the total economic activity of the community will be brought under control to a large extent. Demand for industrial products of the bulk of the population will seldom fall. On the contrary, it will tend to rise. Industrial crisis, whenever it occurs, will not develop into a deep and prolonged depression because the stabilization of agricultural prices will act as an effective counterweight to a fall of incomes. Stabilization of agricultural prices will thus not only benefit the agricultural economy but the economy as a whole. And therein lies its supreme merit.

Adjusting output

I have tried to show, in what has so far been said before this, how the possibility of a fall in demand can be largely checked. The output of agricultural goods, therefore, need have no occasion to contract as a whole. On the contrary, it will be necessary to expand it in response to an increase in population and a rise in incomes. How far should such a rise be effected in order to meet the rising demand? Clearly, it must expand in exact proportion to the rise in demand. The planning authority will have also to take into account another problem, I mean the problem of shifts in demand produced by rising incomes and changing tastes. It must be noted at this stage that the demand for food-stuffs as a

whole is inelastic relatively to the demand for other goods. The production of food-stuffs as a whole, therefore, will have to expand at a relatively much slower rate than the production of other goods. This does not, however, mean that the composition of the output of foodstuffs should remain unchanged. Indeed, rising incomes and changes in taste will always tend to cause quite considerable shifts in demand from inferior foodstuffs to superior ones. This must always be expected in a developing economy. The output of foodstuffs will thus change in quality as well as in quantity. Change in quantity will be required by a change in population and a change in quality by a change in taste.

Agriculture is not merely concerned with the output of foodstuffs. It also supplies raw materials for industries. Unlike the demand for foodstuffs as a whole the demand for raw materials supplied by agriculture is more elastic. With a population of rising incomes the demand for such raw materials as cotton, rubber etc. is bound to rise. Their production will thus have to rise more rapidly than the production of foodstuffs. It is however important to note that even in the case of raw materials the tendency of demand to shift from inferior to superior goods will always be present in a developing economy. Hence, a change in the composition of their output also will be called for. All this requires on the part of the planning authority a close and continuous study regarding the probable changes in population, in shifts of demand and in the magnitude of demand.

How and in what manner should the planning authority perform this supremely important task ? In a competitive economy consumers show their preferences for different kinds of goods by purchasing larger or smaller quantities of them

at the prices ruling in the market. The competing producers form their estimates of the probable changes in demand and try to adjust the disposition of their resources in accordance with their individual expectations. They also undertake the more positive role of actually trying to create demand for the new goods which they wish to place before the public. The consumers' responses to advertisements and price changes give guidance to the producers in their productive activity. This is how economic theory looks at the working of the market mechanism. In actual practice however prices are monopolistically controlled and production is restricted in order to bolster up profits. Production fails to adjust itself to demand. Where competition prevails individual competitors, unaware of the actions of others, cause a glut or a scarcity. Moreover, unscrupulous advertisement campaigns distort demand by playing upon the people's fancies. All this can be replaced by the co-ordinated plan of the planning authority. Accurate estimates of the probable growth of the population can be made. Scientific improvements in production can be properly advertised and the public can be properly educated about the goods which can really answer their true requirements. Moreover, the consumers can be actively associated with the productive associations. This is how a close correspondence between the public demand and production can be established. The method of active association of consumers with production is superior to the price mechanism. Under the working of the price mechanism consumers express their preferences only by means of mute attractions and repulsions. They are not able to give active and vocal expression to their real wants. Under planning they can freely express their desires and, in so doing, can consciously think out their wants and requirements. Changes in tastes, shifts to superior goods, quantitative changes in

demand, all can be more accurately studied and understood under planning in which the people are actively associated as producers and consumers with the whole planning mechanism.

Foreign demand and exchanges

When all this is said and done, however, there still remains one important factor in the situation. This important factor is the behaviour of foreign demand. Theoretically, foreign demand would work in the same way as national demand and some intelligent guesses can certainly be made in regard to its behaviour. We are in a position to know the dispositions of foreigners in regard to our goods when internal prices are fixed and can, over a period of time, study the trends in foreign demand. But the behaviour of foreign demand is likely to be greatly affected by the price policies adopted by the governments or planning authorities of foreign countries. If they allow their own prices to go down with rising productivity, shifts in demand caused by price changes are bound to occur. If, on the other hand, the ideal of fixed prices is followed by them also, foreign demand can be more accurately read. It is of course true that the effects of a fall in foreign prices can be neutralised by appropriate compensatory changes in the exchange rates. In that case shifts in demand will not occur purely on account of the fall in external prices. This then appears to be the only policy feasible under the circumstances. Under a competitive economy exchange depreciation only becomes a device for protecting vested interests and for putting a premium on inefficiency. But, under planning of the sort I have suggested, productivity is continuously encouraged. There is no reason, therefore, to feel that exchange depreciation necessitated by divergent price policies under planning has the same

effects as under unplanned economies. Under planning exchange depreciation would be only a legitimate method of reconciling divergent price policies. The chances, however, are that the different countries of the world will favour policies of price and employment stability rather than of falling prices. I am almost certain that this would be so. In that case exchanges need not depreciate.

In the new postwar world the general adoption of the policy of planning for full employment by the most advanced countries will constitute an effective guarantee against the occurrence of trade cycles. Cyclical fluctuations in foreign demand need not thus be expected. There will likewise be greater international monetary and trade co-operation. Policies of the foreign countries will in general foster closer relations among the nations of the world.

Supply Side

I have so far tried to show how production can be adjusted to demand and how demand can be accurately studied without any dependence on the behaviour of the price mechanism as such. I must now say a word about the spontaneous changes in supply emanating from the working of the factor or factors inherent to supply itself. One factor, the weather, was already discussed and disposed of. Any changes in output which may still occur can be controlled and evened out by reserves. We have the second factor, namely, the advance of technology. Advance of industrial and agricultural technology is likely to be very rapid in the years to come. And its active use in the relevant fields must cause a rapid expansion of productive capacity. Demand also will rise. But, so far as agriculture goes, total demand will rise at a lower rate than demand for manufactured goods. It

will, in consequence, be necessary for the planning authority to release factors of production from agriculture. Mere mechanization itself will give rise to quite considerable superfluity of resources. However, if planning is extended to the entire economy, the absorption of resources rendered superfluous in agriculture will have to be arranged by the national planning authority. The needs of the mechanization of agriculture will give rise to an appreciable demand for tractors, sowing machines, reaping machines, farm-houses, godowns, trucks, roads etc. The programme of irrigation works for the whole country will require thousands of workers and tons of cement, iron and quite a large amount of engineering talent. The planning of this external side of agriculture will absorb some quantities of the superfluous resources in agriculture. Side by side, there must be industrial planning also. This is where planning in the two fields of industry and agriculture have to be co-ordinated.

Conclusion

In summing up the whole position we can say that the planning authority will have the following tasks to perform: (1) forming accurate estimates of changes in population and tastes and shifts in demand ; (2) adjusting the quantities and qualities of goods to be produced in accordance with the indications given by the inquiry into future demand conditions by appropriate crop-planning over the whole country; (3) estimating the internal superfluity of resources caused by the advances in technique, re-absorbing appropriate quantities of them in the measures adopted for the external planning of agriculture and transferring the rest to the other planning bodies for absorption in industrial fields. These are gigantic

tasks. But unless they are boldly undertaken planning will cease to have a meaning.

IV

CHOICE OF THE LEVEL OF PRICE

The general trend of my discussion so far has been to show how the planning authority can bring supply conditions to conform to demand conditions at given prices. If the suggestions made are properly followed much of the work of stabilizing prices will have already been done. This does not mean that no price stabilizing machinery as such will at all be required. Indeed such a machinery is indispensable if price stability is to be guaranteed to the cultivators. We shall have now to turn to this question. But before we do so we shall have to settle one important preliminary question. This question is related to the choice of the level at which agricultural prices should be stabilized. It is very important and needs a careful analysis.

The price norm and cost

In the normal working of a competitive economy the day-to-day price of a commodity is determined by the day-to-day conditions of supply and demand and the expectations of buyers and sellers about future prices. The price ruling from moment to moment is called the market price. It is never steady in open markets in which a large number of buyers and sellers simultaneously take part. However, if we take a sufficiently long period of time there is a tendency for the market price to fluctuate around a certain level. This level is called the normal price. It is really the price norm. If the market price falls below this level it tends to rise up to that

level. If it rises above this level it tends to fall back to that level. This normal level, this price norm is nothing but the cost of production of the commodity in question. If cost of production rises the price norm must also rise. If it falls the price norm also falls. In a developing economy there is always a tendency for costs to fall owing to a rise in productivity. Hence, over long periods, the price norm itself tends to fall with a fall in the cost of production.

Elements of costs

It is obvious that the prices of agricultural products to be chosen for stabilization should be equal to their costs of production. But, if this is so, the question at once arises as to what we mean by costs of production and what items we have to include in our computation of the costs. Normally, the cultivation of a piece of land requires costs to be incurred on the following important items viz. (1) Interest on and depreciation of all sorts of fixed capital equipment. The word 'fixed' is used here only in a relative sense. No item of equipment is everlasting. Some are more durable and others less durable. Farm building and machinery are durable for a long time. Bullocks and small equipment are less durable. But these considerations will have to be taken into account in finding the annual capital cost on land. (2) Management expenses, that is to say, the time and trouble taken in looking after, directing and organising the business of the farm ; (3) Taxes, local and provincial including land-revenue (4) Reserves for bad years, and (5) General reserves. All these five items of costs are charges which a farm business will have always to incur whether the farm is worked at full pressure or not. They are called obligatory or fixed costs. They are also called supplementary costs. The farmer has no choice

in regard to such expenses. Then there are other charges also. They are :—costs of (6) seed, (7) manure, (8) running cost of equipment including breakages etc., (9) storage charges, (10) transport charges, (11) marketing expenses and lastly, (12) labour charges. The charges on account of items from six to twelve are supposed in economic analysis to be prime or variable costs. They usually vary with the variation of output. Prime costs and supplementary costs together form the total costs. The average cost or cost per unit of the output is found by dividing total costs by the units of output produced. Marginal costs are the variations in total costs caused by variations in total output. The relationship between the marginal cost and average cost is such that so long the average costs fall marginal costs are lower than average costs and so long as average costs rise marginal costs are higher than average costs. The marginal costs and the average costs are equal at a point where the average cost is lowest. The level of the lowest average cost will clearly be determined by the technique and the scale of production. With every advance in the technique and the scale of production the lowest level of the average cost must fall.

Marginal and average costs

Marginal costs rise as soon as one or some of the factors of production employed in the productive process become inelastic in supply and other factors cannot be substituted for the scarce ones. Traditional economic analysis assumes that as the demand for agricultural products increases with every increase in population there will have to be either a resort to inferior lands or an intensive cultivation of the land already being exploited. This is because land is a factor limited in supply. In both cases the marginal cost must rise above

average cost. Normal prices will be governed by marginal costs under these circumstances and not by average costs because, additional output will not be produced unless price covers marginal costs. Economists would, in the light of this theory, say that, if the prices of agricultural products are to be stabilized, they will have to be stabilized at the level of the prevailing marginal costs. If the marginal costs rise the prices will have also to rise in the same proportion.

All this reasoning of traditional economic theory forgets an important factor in the situation. This is the factor of technological advance. The history of agriculture over the whole world shows that the application of science to agriculture has produced a tendency for costs to go down continually. Rents have been reduced and wherever they have tended to be sticky the standard of life of the cultivators has gone down owing to competition and the consequent fall in wages. Under planning, the use of scientific advances in agriculture will be far greater and more intensive. In fact, planning would have primarily to mean the use of science in industry and agriculture. Under planning, therefore, there would be no necessity for practising agriculture under rising marginal costs. The quantity of output produced upto the point where average costs are lowest would be quite enough and far more than enough for satisfying all the requirements of the national population as well as for satisfying the foreign demand for exports. I, therefore, feel that if prices are to be stabilized they should be stabilized at the lowest level at which the average costs will stand as soon as the main reforms under planning are introduced.

Advance in technique

There is still the difficulty of the continuous fall in average costs themselves owing to the steady advance in the methods

of production. The question in this case is whether prices should be reduced in proportion to the reduction in average costs. Theoretically, there would be no objection of this procedure. But, in my opinion, raising wages in proportion to the rise in productivity is a better alternative. It has a better psychological effect on the cultivator and it is easy to administer. The farmer's income would rise in proportion to the rise in his output and his incentive would remain unimpaired. If, on the contrary, his money income remains steady he will not directly feel the change in his economic position. Most of the requirements of the cultivator in regard to agricultural products would be satisfied by the farm itself on which he works. But if he continues to get the same money income there will be no benefit unless the prices of industrial products required by him also fall. We thus come to the conclusion that the lowest average costs incurred as soon as the first planning measures are introduced should be the basis for stabilizing prices.

Differences in Fertility

It may be objected, however, that the application of science would not eliminate the difference between fertile and infertile lands without cost. This is no doubt true. But this particular difficulty would not be of a serious character. It can be easily overcome by including in the costs the existing rents. In fact, the co-operative farm corporation would distribute its capital stock among those who contribute land and other equipment to it on the basis of the capitalised values of rents already being earned by the land-holders. The total rent to be paid to the stock-holders will enter into the account books of the corporations on the side of costs and the lowest average cost of output realised as soon as the first planning

measures are introduced would include the rent item. This rent item would constitute a part of cost per unit of output. It would be equal to rent divided by the number of units of output secured immediately after planning is introduced. Whatever increment of produce is secured from the farm owing to more efficient organization, division of labour, and mechanization etc. would be clearly due to the improvements effected and not to any 'inherent and indistructible powers of the soil'. The cost of the increments of output will have also to include the average rent per unit charged for the output produced immediately after co-operative farming is introduced. This rent on the increments of output will accrue to the corporations as profits and will not go to the stock holders.

Cost Elements Examined

This brings me back to the question of costs and the problem connected with their calculation. Costs, in a money economy, are expenses incurred in producing the output. This is a workable definition and is sufficient for our purpose. I have given above the various items which are usually included under expenses on the farming business excepting the so-called rent item. But we saw how it could be taken into account in computing the lowest average costs. It would now be worth our while to spend sometime in analysing the various cost items enumerated above. Let us deal with the variable or prime costs first. The most important of the various items of prime costs is naturally the twelfth item, namely labour charges. How and on what basis are the labour charges to be calculated ? Before, however, we come to discuss this question it is necessary to know the general principles on which farm labour is to be paid. There are various kinds of work required to be done on the farm as for example, levelling, weeding, ploughing,

sowing, reaping, threshing, transporting, marketing, watching the crops, irrigating etc. In most of them some sort of a piece-rate system can be introduced. Work done in regard to most of the items is amenable to a quantitative measurement. Time and the quantity of work to be accomplished will have to be related to each other. How much of a given kind of work is a person of average capacity able to do in a given period of time can only be determined by a series of experiments. Standards and norms can thus be established. When this is done every person who exceeds the norm can be paid extra wages in proportion to the excess of work accomplished over and above the standard output. However, even after this is done, there would still be some jobs like supervision, and management which cannot strictly be reduced to quantitative measurement. There will have to be adopted, in this case, some system of awarding classes and distinctions and payments made in accordance with the classes awarded.

Standard of Life

All this, however, does not exhaust the question of the determination of labour costs. The norm determined on the basis of the work done by a worker of average capacity should be paid a wage which guarantees to him some definite standard of life in terms of consumption goods. It must, of course, have a relation to the productivity of the worker. For example, if the productivity is so low that a worker is not able to produce enough food on a food-crops farm to maintain himself and one or two dependents he cannot be given a remuneration which guarantees him a comfortable existence. This would not encourage his efficiency but would, on the contrary, discourage it. Further, paying a worker out of all proportion to his work will make him a parasite on the society at least

partially. However, if all the planned improvements are introduced in agriculture there will be such a rise in the general productivity of all the farmers that workers can be easily paid a guaranteed minimum of wages in terms of material goods including foodstuffs. This would require a simultaneous planning of the production of goods other than pure foodstuffs which are secured from land. But it only means that planning has to be all-pervading.

Money wages

Costs, in a monetary economy, are paid in terms of money. Therefore, even when the wage standards are determined in terms of material goods, the actual payment will have to be made in terms of the money equivalents of the goods in question. How can such money equivalents be determined ? Can we take the prices of those goods at present prevailing in the market as bases for determining money wages ? Clearly not. The prevailing prices are the result of the distortions effected by the general inflationary conditions of the war. In these distortions prices and income distributions have ceased to show any correspondence between prices and costs. If, as a result of the inflation, all incomes had been equally affected, the prevailing prices could legitimately have been taken as a basis. But incomes have not been equally affected. Some income groups have risen phenomenally high and some have risen only to a certain extent. The rest of the income groups have hardly been affected to any material degree. It is, therefore, necessary either to reduce the highly expanded income groups to levels appropriate to those groups which have not risen or to raise the unchanged and partially changed income groups to levels appropriate to the fully expanded groups. The first method seems to be more appropriate though it would require

a process of considerable profit deflation and, consequently, monetary deflation as well. As soon as the deflation of the expanded and partially expanded income groups is successfully accomplished by the method of deflating prices a proper correspondence between costs and prices will be established. In the end, the different income groups will stand in a proper relationship with one another and prices also will have a proper relationship with costs. These deflated prices can then form the basis of determining the money wages of farm workers.

Other costs

Charges eight, nine, ten and eleven include the running cost of equipment, storage cost, transport and marketing cost. All these can be divided into labour charges and charges on account of capital equipment. In regard to labour charges the same principle which has been explained above can be followed. Capital equipment charges include interest and depreciation. So far as interest charge goes a uniform standard rate of three or four per cent can be established for all the co-operative corporations. As regards depreciation cost it would clearly be necessary to base it on the initial capital cost of machinery or buildings etc. and on their durability. Obsolescence charges can also be included in the total cost on the basis of expectations about the future timings of improvements in the instruments. Charges six and seven include seeds and manure. These also have to be computed on the basis of labour and capital charges.

A difference regarding the calculation of charges of the various items would prevail according as the charges are internal to the agricultural industry or external to it. For example, if intermediate goods like manure are purchased from

concerns independent of the agricultural industry, the money costs of them will be equal to the prices paid for them. In the planning of the economy as a whole the fertilizers industry would be owned and managed by the community as a whole. So would industries established for manufacturing tractors, harvestor-combines, trucks, iron bars, sheets and cement. In that case the purchase prices of these goods will be more or less stable prices and as their depreciation and interest costs can be based on stable prices no difficulty would arise.

Overhead Expenses

In the case of the so-called supplementary costs also the procedure would not be difficult. Capital equipment charge consists of depreciation and interest. Management expenses can be determined on the principles generally applied to labour charges. Government taxes would be some fixed sum per unit of the output. Reserves for bad years can be calculated on the basis of expectations about variations in the yields of harvests. In an economy where crops are protected their yields will not vary from year to year to any material degree. Nevertheless, some small variations are unavoidable and have to be estimated for the cost calculations of lean years. General reserves are an easy item and need not be bothered about.

The discussion above provides a rough basis for calculating the lowest average cost of agricultural products. The rent item is included in the computation of average costs. When the cost per unit of the produce is thus determined it would be the duty of the planning authority to establish a machinery which should stabilize prices at the level of the costs so ascertained. Future reductions in average costs may naturally be absorbed by proportionate increments in the wages of the farm workers, capital charges, taxes and profits. On no account

should rent-receivers have any claim on the savings effected by reducing costs. Whatever rent earnings they are enjoying at present will, of course, be paid to them. But all the future gains of the farms will be due to the planning organisation and the application of science to agriculture. They may go to labour, management and capital. Rent receivers cannot clearly have any claims on these extra gains resulting from improvement in technique and the rise in labour productivity.

V

MACHINERY AND METHOD OF STABILIZATION

What is the kind of machinery which it is necessary to set up in order to maintain a stability of prices and what should be the method to be employed by it? It is necessary to discuss the method of stabilization first. This will enable us to suggest the machinery appropriate to the purpose of putting the method into effect.

I have, in part, already suggested, in what has gone before, some measures which it is necessary to employ for preserving the stability of prices of the agricultural commodities. One such measure is the planning of crops so as to produce different quantities of the goods in question in accordance with the expected demand. Demand changes according to the changes in population, tastes and so on. The planning authority must, therefore, so plan the crops that the expected changes in demand are properly met. The crop-planning work in this case will naturally be of enormous magnitude and intricacy. It will have, therefore, to be very carefully organised.

Method of Control

Correct planning of output should in reality solve the major part of the price stabilizing work. It will have of

course to be supplemented by an additional device. The appropriate additional device, in this connection, is the standing readiness on the part of the price stabilizing body to buy and sell the various goods at the legally fixed prices. There will have, quite clearly, to be two prices to be fixed viz : the buying price and the selling price for each commodity. The difference between the two prices should cover the cost of holding the goods, of distributing it to the final consumers and a certain margin of profits. So long as the market price of any good is above the legal buying price, the price stabilizing body need not buy the good. No seller will be interested in selling the good to it. Similarly, so long as the market price is below the legal selling price no one will be interested in buying it from the price stabilizing body. The body would, in this way, come into operation in the market only when the price in the market either tends to go below its buying price or to rise above its selling price. The price stabilizing body should, however, directly administer the prices in my opinion. In that case it will have to operate in the market continuously.

⁴ It would be very easy to administer the legally fixed prices if the price stabilizing body takes all the surplus stocks of the co-operative arms which the farms may have annually on hand after satisfying the requirements of their own members. After these surplus stocks are requisitioned, the price stabilizing body can sell them direct to the final buyers whether they are consumers or manufacturers or foreigners. This method might involve the squeezing out of all the speculators, wholesalers and retailers because they will be no longer required in the market. However, it is really not necessary to liquidate the whole set of the trading and distributing machinery.

The speculative market will alone have to go by the board. In a planned economy there cannot be any room for speculators. Speculation primarily depends upon the changes in the expectations of demand and supply and on the monopoly power of money capital. In the present state of anarchic production every producer producing independently of others on the basis of his own particular expectations and every speculator calculating his own chances of success and basing his action thereon give rise to constantly fluctuating market prices. With a nationally planned output there will be no occasion for erratic disparities between the two. This is how speculation will have no basis for operation under planning.

This does not mean that there should be no wholesalers and retailers. It is quite possible for the wholesaler to buy goods from the planning body out of the surpluses commandeered by it from the co-operative farms and to distribute them among the retailers. The retailers can also distribute the stocks, secured from the wholesalers, to the final consumers. In the case of industrial raw materials produced by agriculture the wholesalers can directly deal with industrial concerns requiring them. The price stabilizing body will of course try to maintain unchanged the ultimate price charged to the final buyer. If the wholesalers or retailers' charge prices are higher than those fixed by that body, the final buyer has always the option of buying his requirements from the price stabilizing body itself. This body will not only buy and sell at the legal prices but will also maintain the quality of the commodities according to some standards fixed by law. Indeed, the state will have to specify and make obligatory appropriate standards of goods to be bought and sold. So long then as goods of given qualities are available at given prices the wholesalers and retailers cannot tamper with either of them.

Anti-monopoly measure

It is of course possible for the constituents of the market to use their monopoly power to corner the stocks of goods and compel the price stabilizing body to give up its attempt at holding the prices at given levels. But such a use of monopoly power can be defeated by the body by building up its own monopoly power. The body can start functioning only after building up sufficiently large stocks for use in the market. As soon as the market shows even the slightest tendency of being influenced by private monopoly it can come into operation. The British government did exactly this in the case of the dollar-sterling exchange rate in 1932. It has continued to eliminate the fluctuations in the rate and to hold it pegged right up to the present period.

The price stabilizing body can renew the stocks accumulated by it every year by disposing of the old ones and replacing them by new ones. There would, in that case, be no danger of any deterioration in their quality. Further, scientific measures can be adopted for preserving stocks from deterioration even in a single year. In course of time, when the community gets used to stable prices and plentiful stocks as well as to the operations of a planned economy, the device of accumulated stocks can be safely dropped.

So long as output is planned according to the normally expanding demand in a developing economy there will be no possibility of the agricultural production out-stripping the demand and of the price stabilizing body becoming loaded with unsalable stocks of goods. It is of course true that the planning of agriculture will have to be allied with the general planning of the expanding economy of the whole community. This will facilitate the absorption of resources saved up in

agriculture by other parts of the economy. Their congestion in agriculture can be removed only in its way. Stocks larger than are necessary for the economy will thus not be produced at all. There is another possibility also. In course of time some sort of an international mechanism may come into existence for controlling and stabilizing the prices of primary goods by creating what have come to be known as 'buffer stocks.' We can, in that case, link up our own price stabilization measures with the international mechanism and merge our 'buffer stocks' in those of the world.

The Machinery

The foregoing discussion of the methods of price stabilization has stressed the importance of two or three institutional agencies in the mechanism of price stabilization. They are firstly, the agency for crop planning ; secondly, the agency of price stabilization proper and thirdly, the co-operative farms themselves. We shall call the first the National Crop Planning Board and the second the National Price Stabilizing Board. The first or the N. C. P. Board is a necessary adjunct of the second or the N. P. S. Board. The first controls output and thus facilitates the work of the second. Further, the work of both requires that they should be associated and linked up with the co-operative farm corporations. The N. C. P. Board and N. P. S. Board will not be small organisations. They will have their ramifications throughout the economy as a whole and will have connections with the subordinate agencies as well as with the supreme agricultural planning organisation.

At the bottom of the whole structure will be the co-operative farms. Each co-operative farm will estimate the needs of its own members for every year in regard to their food requirements and the needs of the farm in regard to

seeds and reserves. Farms which specialize mainly in the production of industrial raw materials would form estimates of their own reserves and seed requirements. Both types would also estimate the output possibilities of the season and the seasonal surpluses after meeting their own requirements. These various estimates will have then to be communicated to a higher body.

How will this higher body be constituted ? I think that in the first place it would be necessary to divide the whole of the cultivated area in India into crop-zones. The rice zone, the sugar-cane zone, the cotton zone etc., will have to be properly demarcated. Broadly speaking, the crop zones in dry tracts will considerably overlap one another though they may not fully coincide. The wet crop zones will also overlap one another. The farms in every crop zone will have to form associations in the form of Federated Farm Boards (F. F. Boards). In all cases, where the zones coincide, single boards will suffice. But, where the zones do not coincide, every continuous crop zone, even though it partly overlaps some other zone, should have its separate federated board. The co-operative farms should communicate their estimated needs and output possibilities of every year or season to the Federated Farm Boards. The different F. F. Boards, in their turn, should add up all the information secured from the different farms and forward it to the N. C. P. Board. (The Federated Farm Boards will have other important duties to perform. But discussion about all this will be taken up in a subsequent chapter.)

It is easy to see that the N. C. P. Board cannot form its decisions only on the basis of information collected from the Federated Farm Boards. This information will be primarily

concerned with the needs and possibilities of the rural areas. It will not be able to enlighten the N. C. P. Board regarding urban needs. The urban needs can be ascertained mainly from the consumers in the urban areas. The consumers will be daily in touch with the retailers. The retail shop establishments will have, for this purpose, to be joined together into Federated Shop Committees so that the urban needs can be adequately ascertained through them. Each shop should report on its annual experience of sales regarding qualities and quantities to its Federated Shop Committee. (F. S. .C) It will be very desirable for the Supreme Agricultural Planning Organisation to encourage the formation of co-operative consumers' societies among industrial workers, transport workers and the municipal workers. Such societies can also be very usefully enlisted as members of the F. S. Committees. The annual reports of such members will be of immense value in checking the reports of the free retail shops and in correctly estimating the urban needs in various centres.

Both the F. F. Boards and the F. S. Committees should have, at their respective tops, Consultative Councils formed of a few members elected from among the respective lower organisations. The Consultative Council of the F. F. Boards would clearly consist of the representatives of producers and that of the F. S. Committees would consist of the representatives of retail shopkeepers and consumers' co-operatives. These two councils should assist the Crop Planning Board in its work of relating output to needs. The N. C. P. Board should also get annual information about population changes from the department of vital statistics. It should, in addition, organise academic researches by university teachers and research workers in the trends of changes in consumption. It is in all these ways that

the work of the rational planning of crops can be satisfactorily performed.

The National Price Stabilizing Board should chiefly be concerned with purchases of surplus stocks from the co-operative farms and with their disposal to the wholesalers. It should have the option of selling the stocks to the retailers and to the consumers' co-operatives also. It might find it necessary, for some time to come, even to have its own retail shops with a view to make its own final selling price effective. It need not actually take possession of the stocks but it will have to pay the price of the stocks to the farms and to ask them to send different portions of the stocks to the wholesalers at different places. Every co-operative farm will have to deal with a certain number of wholesalers or even retailers and consumers' co-operatives. All retailers, consumers' co-operatives and wholesalers who wish to trade will have to be licensed on condition that their selling prices will not exceed the Board's maximum prices. For the purpose of the distribution of the stocks the producing farms and wholesalers will have to be formed into convenient groups so as to facilitate the distribution without unnecessary transport. The F. F. Boards will have to arrange the distribution within the groups in strict accordance with the instructions of the P. S. Board. Between the wholesalers etc. and the P. S. Board it would be convenient to establish for every crop zone, what may be called, the Regional Trade Boards (R. T. Boards) whose business it will be to see that the prices fixed by the P. S. Board are maintained. These R. T. Boards will function for every crop-zone just like the F. F. Boards. They will be concerned with purchase and sale just as the F. F. Boards will be concerned with the output.

It is not difficult to see that, for the purposes of distribution and trade, the war-time machinery created by the governments of the various provinces and by the Government of India could, with advantage, be maintained and perfected with all the necessary modifications. That machinery has not, it is true, worked satisfactorily during the war period. There was a considerable amount of inefficient and dishonest management which caused deaths by starvation on the one side and harassment in the procurement of grains and other supplies on the other. All this will have to be corrected. Ultimately, the whole machinery and its personnel will have to come upto the level of the machinery and personnel of the civil services in advanced countries. It is clearly here a case of trial and error. But it cannot be avoided. This is the first time that we are embarking on an adventure of creating and running a state machinery which is directly related to the service of the community in its daily requirements. This machinery will not govern, as does the civil service, but will serve the community. During the war this type of service has been created in India for the first time. Unfortunately, it was recruited, in part, from the retired civil servants. The lower personnel was also filled with clerks and other petty officials drafted from the administrative services. The whole machinery was subjected to the supervision, control and direction of the existing civil administration. All the traditions of inefficiency, slackness and bribery characteristic of the civil services came to be practised in the food rationing administration also. It has to be realized that the work involved in planned distribution requires a thoroughly business-like efficiency drive and a strict accounting procedure as well as accountability. If the state is serious in its job the war-time machinery can be made quite efficient and honest.

Under a system of planned economy it would be difficult to leave foreign trade in the hands of private dealers. We cannot dictate prices to the foreigners. Unlike the private dealers in the home trade, those engaged in foreign trade will reap all the advantage of high foreign prices and the state will have to bear all the losses. It will be necessary, therefore, to conduct all foreign transactions through a State Board for Foreign trade. If the state derives high profits they should be credited to a fund which may be called the Foreign Income Equalisation Fund. If the Board is obliged, at any time, to sell a part of its surplus in foreign countries at a loss, it will, similarly, have to be debited to the same fund. Over a period of years the credits and debits will tend to cancel one another. If, however, there is a profit on balance it may be credited to the central treasury and if there is a loss the national exchequer will have to suffer it. Efforts can, however, be undertaken to reduce the production of goods which have to be sold at a loss and increase the production of those which bring profits.

So long as the N. P. S. Board commands large stocks which it can bring into play in the market and enables the final buyers to get their goods at the Board's maximum selling price no private dealers will be in a position to corner the supplies and to disturb the machinery. There is thus every chance that the mechanism suggested above will work smoothly. It should also be remembered that, apart from the 'buffer stocks' built up for breaking the power of private monopoly, there is no likelihood of any accumulation of additional unsalable stocks. This is because the output of the various goods will be produced year by year exactly according to the annual requirements. Year by year, the stocks produced will be exhausted by industrial and private consumption.

CHAPTER IV

Industries Allied to Farming

I

The last two chapters have sketched a rough frame-work of the national planning of agriculture in India. The industries allied to agriculture were not included in the construction of that frame-work. I propose to undertake this task in the present chapter.

The most important industries closely allied to agriculture are cattle rearing, dairy farming and poultry farming. They are important because their products are included among the essential commodities of human consumption. The present condition of these industries is, to say the least of it, chaotic. There is not even a rough sort of organisation to be found among them. They are just limping along with agriculture as side occupations. Let us turn to the cattle question first.

The cattle problem

Under the term cattle would be included mainly cows, bulls, bullocks and buffaloes. Asses, ponies, camels and such other animals may be neglected for the purpose of this investigation. The condition of Indian cattle is very serious. We have in this country a chronic over-population of cattle in the same way as we have over-population of human beings. The livestock census of 1935 shows that, excluding Bengal, Bihar and Orissa, the whole of the British India had 113 million

heads of bovine cattle. There were 67 heads of cattle per 100 acres of the net sown area. 'The inter-provincial distribution of cattle is markedly irregular even when allowance is made for the nature of the land to be tilled, the extent of well-irrigation, the amount of scrub and jungle, the rural population, and the size of the holding'. 'Holland possesses the largest number of cattle in relation to the size of the country and yet has 38 cattle per hundred acres of cultivated land. In Egypt, where general conditions in which agriculture is carried on are much more similar to those obtaining in parts of India than in Holland, there are 25 cattle per 100 acres of cultivated land.' (Indian Economics by Jathar & Beri Vol. I).

The overpopulation of cattle manifests itself in the form of a serious shortage of fodder and the consequent under-feeding of cattle. The shortage of fodder supply becomes all the more alarming because, in many parts of India, rainfall is only seasonal in character. This renders the supply of fodder very precarious particularly in the dry months between December and June. Moreover, the increase in human population has necessitated the conversion of grass-lands and meadow-lands into lands for the cultivation of food-crops. This has reduced the supply of fodder still further. The under-nourishment of cattle is thus a common phenomenon everywhere in India. The under-nourished cattle constitute an economic waste in two important ways. Two weak bullocks yield less work than one strong bullock but they require a relatively larger amount of fodder to eat than one strong and healthy bullock. They thus eat more and work less. When cattle are under-nourished they become liable to frequent diseases and die in large numbers. As no appropriate care is taken of their health they are not suitable even for beef.

Bullocks and buffaloes are used in India for ploughing, threshing, sowing and transporting. Being poorly fed they cannot do this work properly. On the contrary, their fodder requirements make it difficult for milch cattle also to get enough fodder. Both are badly fed and both render unsatisfactory service. Milch cattle tend to be less productive of milk in quality as well as in quantity and remain dry over a relatively longer period. Dairy-farming, in this way, has remained in a very unsatisfactory state. The introduction of mechanized farming is likely to render the problem of cattle in India still more serious. Large numbers of them will no longer be required for ploughing, sowing, threshing or transporting. They will be totally neglected and will deteriorate still further.

Our ideal in regard to the cattle in India should, in the first place, be that we should try our utmost to eliminate all the wastage involved in the occupations of cattle rearing and dairy-farming. Most writings on the cattle problem of India do not look at the problem this way. The Agricultural Commission looks at the issue from the viewpoint of increasing the supply of fodder so as to ensure adequate feeding of the cattle. The ideals aimed at are the increase of fodder and the improvement in the quality of the cattle. These aims would undoubtedly be correct only in case we wish to preserve the present organisation of agriculture unchanged. If there is no change in agriculture itself it must require the help of properly fed cattle. Otherwise, the question will have clearly to be tackled in a totally different way. I have already suggested in my earlier chapters that we should reorganise the entire structure of the agricultural industry. In the light of the suggestions made in those chapters it is easy to see that we shall be faced with a serious superfluity of cattle. It is

this superfluity of the cattle population which we must remove first.

Cattle slaughter and meat packing

The easiest way of achieving this objective is to establish the industry of cattle-slaughter and meat-packing on a large scale. We have seen already that in Holland there are 38 heads of cattle per hundred acres while in India we have 67 heads per hundred acres. The excess of cattle fed on each hundred acres in India over the cattle in Holland is thus equal nearly to 30 heads. This indicates a rough measure of superfluity in India. Worked out for the whole of India the superfluity of cattle reaches roughly the figure of 50 millions of heads excluding calves and male buffaloes. It can be removed only when we organise a properly equipped cattle-slaughter and meat packing industry on modern lines.

There is of course no possibility of the development of a large market for meat in India. Indian climate perhaps does not require meat diet. But we can certainly join other countries in exporting meat to those areas which require the commodity. Our competitors are very powerful. But there is no reason why we cannot come up to their level of efficiency in this industry. If we develop this industry on scientific lines we shall derive some very valuable advantages. They are as follows :—

- (1) We shall be in a position to create employment for a number of people in this country. Besides the work connected with slaughter and meat packing proper, we shall require slaughter-houses, machines, waggons, refrigerators, cargo vessels and a variety of auxiliary

goods. The primary and secondary employment created in consequence will be quite large.

- (2) We shall add a new product to our list of export goods.
- (3) The superfluity of cattle will be removed causing a considerable amount of saving in our fodder supplies.
- (4) The saved-up fodder supplies will be available for feeding milch cattle which will then yield a better quality and a larger quantity of milk.

It is necessary to dwell for some time on this last question. We are aware that diet in all the parts of India is notoriously deficient in milk and milk products. Infants, children and mothers of the poor and lower middle classes do not get adequate quantities of milk. Infant mortality and mortality among young mothers in India is the highest in the world. One of the major causes contributing to the high mortality rate is the deficiency of a properly nourishing diet, particularly of the supply of milk. The supply of good quality milk must therefore increase. However, so long as the dairy industry is in the hands of illiterate and ignorant people, a rise in the milk production of the country cannot be expected.

II

Dairy Industry

At present the dairy industry is practised in India on a very small scale. In the villages small farmers own a cow or a buffalo each. They produce milk, butter and ghee and sell them partly to the villagers but mainly to the people of the neighbouring towns on weekly bazaar days. Often, a trader from a large town or city comes to the village, collects the butter and ghee from the farmers, packs them in kerosene tins

and sends them by rail to the cities like Poona and Bombay for sale. In the towns there are usually small dairy establishments of three or four cows or buffaloes scattered over various parts. They are owned by professional milkmen who supply the town-folk with milk and butter. In recent times peoples belonging to the middle classes have attempted to enter the trade. They have started small dairies as business concerns in a number of towns. In big cities like Bombay large capitalists own hundreds of milch cattle and run dairies for the requirements of the city population. Milk is distributed by the employees of the big dairies. By and large, the whole organisation is loose and haphazard. Trade dishonesty is rampant and the public has to suffer the evil consequences of dishonest practices.

In place of all this it is possible to organise model co-operative dairies. In the villages owners of milch cattle can put together their cows and buffaloes, form a co-operative dairy, attach it to the co-operative farm and run it jointly with the farm. The dairies may have initially to function only in a small way. But, as the farm becomes richer, more cattle can be bought and the dairies can grow considerably in size. Draught cattle will vanish in course of time and the fodder saved would be available in large quantities to the co-operative dairies. The dairies must, in the end, grow to such sizes that all the needs of the co-operative farm members can be fully satisfied. The quality of cattle can also improve and mechanical methods of milking the cows can be adopted.

The problem of converting the town and city dairies into large co-operative concerns is rather difficult. These dairies are organised capitalistically. Unlike the village dairies in which the owners of the cattle are themselves the workers,

the small dairies in the towns are owned by small capitalists and worked with the help of hired labour. It would be very difficult to introduce the co-operative principle in them. Some sort of compulsion would be necessary in their case. There will be the question of the rights of owner-managers and the workers. But the same principle as is suggested in the case of co-operative farms can also be adopted in their case. A return on the capital invested can be guaranteed. This return to be guaranteed will have to be determined on the basis of about ten years' average. The management can, in the beginning, continue to remain in the hands of the owners. But its life should be legally limited to a definite number of years after which the owners of capital or their legal heirs can claim only a guaranteed return on the capital but no remuneration of management. The management should then get transferred to some co-operative farms in the vicinity of the towns in return for some consideration. The introduction of the co-operative principle will be next to impossible in the case of dairies owned by big capitalists in cities like Bombay. Here the municipal authorities should gradually extend their control over them and ultimately buy over the concerns outright. The dairy establishments located in the cities can then be transferred outside the limits of the city area and attached to some co-operative farms.

The dairy industry in India can be put on a scientific basis if the dairies are attached to the co-operative farms in general. The farms would supply ample fodder and the cattle would yield manure to the farms of various kinds. Both the organisations would, in consequence, benefit considerably. It is said that the waste in sugar-cane factories also provides valuable fodder for the milch cattle. The cane, after yielding

its sugar contents, becomes excellent fodder. The factories can start their own dairies and can make use of the waste in the dairies. These will not be on a co-operative basis. But, as they will be on modern lines, their efficiency will be on a par with that of the co-operative dairies.

Output and Distribution

The industry can be brought under centralized planning and direction. This would of course require a careful survey of the needs of the rural and urban population in respect of the quantity and quality of the dairy products like milk, cream, cheese, butter and ghee. Every co-operative dairy can be allotted its quota of the production of dairy goods for satisfying the requirements of the rural and urban population. The capitalists' dairies also can be brought under the scheme of production-planning. The production plan will require for its execution the determination of the number of heads of milch cattle for every year. It will also require the determination of the number which each dairy will have to manage.

For securing the requisite quantity and quality of cattle for each farm and for the whole of India it would be necessary to establish cattle-breeding farms in each of the different crop zones. Milch cattle reared and bred in them will be sold to the dairy farms and other cattle to the slaughter-houses. For the purpose of ensuring the maintenance and improvement of the quality of cattle it would be possible for us to follow the Soviet Union's practice of artificially impregnating the cows and buffaloes in the zonal breeding farms from a central All-Indian Station.

The question of distributing the daily supplies of milk and butter is very important. We have enough experience of

the present-day distribution system to make it difficult for us merely to suggest certain reforms and palliatives. Private agencies adulterate milk, distribute it irregularly and neglect all precaution regarding cleanliness. Leaving this work to private enterprise constitutes a direct incentive to the spreading of diseases. The municipal authorities in India have realized this and some of them have taken very energetic measures against these practices. But the evil still remains. The distribution of milk supplies to the city population must be taken up directly by the municipalities. Without it no radical improvement is possible. To facilitate the work of distribution the dairies will have to be directly linked up with the municipalities in the cities and towns. The municipalities should distribute the supplies not only to the residential population of the city but also to the hospitals, maternity centres, factory-creches, hotels, restaurants, nurseries, primary schools, public offices, firms and factories.

The planning of the daily and annual output on the basis of the estimates of current and future needs in the case of dairy products can follow the same lines as those in the case of crop-planning. The National Crop Planning Board can itself perform this task and can be assisted by the same agencies as are used in the case of crop-planning. Only, it will have to be assisted, in addition, by a consultative council formed of the elected representatives of the municipalities of the towns and cities. The determination of the prices of milk and of the allied dairy products is like-wise a task in which the procedure followed in the case of farm-products would be useful.

I am almost tempted, at this stage, to suggest that the municipal bodies who undertake the task of distributing milk can, with equal advantage, take up the task of distributing the

supplies of daily vegetables to the city and town population. The co-operative farms would produce in their own establishments all kinds of vegetables in addition to their allotted crops. These will have to be daily distributed among the members of the farms and to be sent to the neighbouring small and large towns in the same way as milk and other dairy products are usually sent. The transport agencies used for the latter can, with an increased contingent of lorries, be used also for the purpose of the distribution of vegetables. Towns and farms nearest to one another can be linked up so as to minimise transport and to reduce costs.

The entire organisation of control and distribution of the produce from agriculture and allied occupations which will have to be created and made into a permanent framework of the social-economic structure can, at any time later, be used effectively in times of war. The world war which has just closed found, at its beginning, that the government of India was totally unprepared for exercising the controls deemed necessary during the times of war. The 'lumbering wagons' of the provincial and central governments slowly began to move only when the war was in its third year. Instead of using the experiences of other countries they began evolving their own machinery. In some of the native states rationing, in fact, came only after the war actually closed! Even when all the controls necessary for the period were instituted the policy was to make the machinery just suited to temporary requirements. The intention was to return to the old rule of mere policing and of dispensing justice. This outmoded and obsolete outlook has now to go. The planning machinery in regard to agriculture and the whole economy should be capable of being, at any moment, turned over to the purposes of war.

The machinery which I have suggested is capable of being quickly turned over to the purpose of war-time control.

III

Poultry Farming

The co-operative farm can usefully combine with itself a second allied industry. This is the industry of poultry farming. Poultry farming in India is as yet in a state of infancy. Native fowl are reared at home by families which require eggs and chickens for diet. In stray places, particularly near big cities, there are large poultry farms, some of them, organised almost on modern lines. But, just as there is a religious objection to meat diet among the Hindus, there is also a similar objection to eggs. The religious prejudices are, however, gradually being overcome, and increasing numbers of people are nowadays taking eggs under medical advice. It is medical advice which has helped the people a great deal in overcoming age-old prejudices and in spreading the use of eggs. There is thus a developing market now for poultry products. The low level of incomes of a very large part of the total population has also acted as an impediment in the way of the growth of demand for eggs and poultry. We can, however, with confidence, expect the income limitation to disappear in the near future. The existing and the prospective market for poultry products can be supplied its growing requirements by modern poultry farms.

Native Indian fowl is of a very low quality and is not efficient in its egg-yielding capacity. Foreign varieties like the Leghorn and Rhode Island will have to be imported in India. Breeding stations can be established in every crop

zone and poultry of very good quality supplied to co-operative poultry farms. Native labour is as yet ignorant of the way in which fowl can be reared and eggs protected. This work requires great care and delicate handling. However, when the industry is organised on scientific lines and fowl diseases fully studied, the farms will gain considerably in efficiency. We can even become a fowl and eggs exporting country in course of time. When the costs of production are reduced and national incomes rise, eggs, and poultry can form a part of the Indian diet along with milk and other dairy products, vegetables with rich vitamin contents, cereals and pulses.

It will not be necessary to evolve any new administrative organisation for the proper functioning of the poultry farms. The same machinery, without any addition whatever, can take all additional duties connected with this industry. In fact, poultry farms will be only a department of the co-operative farms as the dairy farms would also be one of the departments of the productive activity of the farms.

CHAPTER V

Past Debts and Future Credits

I

The proposals which I have elaborated in the last three chapters concerning the planning of Indian agriculture and allied industries cannot be put into actual practice unless ways and means are found for financing them. I therefore propose in this chapter to discuss this question of the financial requirements of the plan and the machinery necessary for meeting them. Before, however, we try to solve this problem it is necessary to deal with the issue of rural indebtedness which has been worrying all the students of the economics of Indian Agriculture. It is clearly necessary to clean the 'Augean stables' before we come to a reconstruction of the financial structure of the agricultural industry.

Rural Indebtedness—Causes

The cultivator in India is proverbially in debt. 'He is born in debt, lives in debt and dies in debt.' He has been in debt since the hoary past. It is not only a symptom of his chronic poverty. It increases his poverty and is the cause of his personal ruin. It goes further, in that, it seriously affects the farming industry. The cultivator neglects the farm whenever there is a prospect of its transfer to the creditor. When the transfer to the creditor actually takes place the creditor, not being himself a cultivator, has, of necessity, to lease it for cultivation to a tenant farmer. In many cases the original debtor-owner himself becomes the cultivator-tenant of the

creditor's land and neglects to look after it for keeping it in a fit condition. The creditor may, of course, sell the land to a third party. But this is not always possible. The result is that, under the influence of the chronic agricultural indebtedness, the productivity of the land tends to deteriorate. The farmer as well as the farm thus suffer in efficiency. The nation as a whole suffers a loss in productive potentiality. This is the reason why measures must be devised for liquidating the debt finally and for preventing its emergence again.

The problem of rural debt is not peculiar to India. Peasantry all over the capitalist world is debt-ridden. The landless agricultural labourers, the poor peasants and the middle peasants are, all of them, groaning under the burden of age-long debts. The phenomenon of the chronic debt of the peasantry appears to be a rather awkward development in view of the notorious Ricardian theory of rent. According to this time-honoured theory the surplus yielded by land over and above its expenses of cultivation has a tendency to rise with every increase in population and the consequent rise in the demand for foodstuffs. It is evident that if the surplus rent received by the land-owner tends constantly to rise, the peasants ought not to run into debts so long as they happen to be the owners of the soil. In India nearly 60 per cent of the peasantry consists of owner-cultivators. Their lot must become, according to this theory, progressively better with every rise in rents. We however find that, historically, not only have rents not risen but, on the contrary, have tended to fall. This is because, in the first place, the supply of new fertile lands in the world has increased in the last two hundred years owing to geographical discoveries. In the second place, agricultural technology in the progressive capitalist countries

has considerably advanced and transport costs have fallen. All these factors have reduced rents by reducing agricultural prices. Side by side, the population depending on the agricultural industry has greatly increased owing to a general increase in population. Agricultural labour is traditionally immobile. It prefers to stay on the land for subsistence rather than seek remunerative work else-where. Moreover, the development of industries has never been so rapid as to absorb all the increase in population as well as the superfluous labour in agriculture. This has generally tended to increase the poverty of the peasantry.

According to the Indian economists rural indebtedness in India is to be attributed to the following causes:—(1) Excessive pressure of population on land ; (2) excessive sub-division and fragmentation of the soil ; (3) absence of supplementary industries; (4) ill-health of the ryot; (5) Insecurity of the harvests; (6) loss of cattle due to famines and diseases; (7) excessive love of litigation; (8) improvidence and extravagance of the ryot especially in regard to marriages; (9) continuation of ancestral debt due to the ryots' ignorance of the legal position; (10) modern changes in the cultivator's position; (11) the money-lender and the system of usury. In the pre-British period there were two kinds of restraints on the increase in the rural debt. Firstly, there existed a vigorous village community which made bad bargains by the money-lender difficult. Secondly, the state was apathetic towards the recovery of debts. This function was performed by the village panchayats. The British rule removed both these restraints. The village community organisation disintegrated and the British government established its own civil courts to administer the civil law.

Government Efforts

Rural debt has presented to the government a constant and a serious problem. The government tried to solve it in a number of ways. It tried, by means of legislation, to prevent the alienation of land and its transfer from an agriculturist to a non-agriculturist. It also tried to protect the agricultural implements of the farmer from attachment. It empowered the courts to go behind the debt transactions and to open up the whole history. It tried to control legislatively the rate of interest paid to the sowcar. It revived, in some parts of India, the old rule of damdupat whereby, as soon as the interest accumulates upto the full value of the principal sum of the debt, further accumulations are prohibited. Lastly, it tried to provide cheap credit to the farmer by tagav loans and by encouraging the establishment of cooperatives societies. From the year 1937 when Congress were formed in various provinces, an attempt was made to establish debt conciliation committees with a view to settling old debts. In 1939 the world war II started, and no further attempts followed. In the states of Bhavnagar, Mysore and Travancore the Durbars scaled down the rural debts even to 25 p.c. of the total accumulations in some cases, paid up the necessary sums to the sowcars and took over the entire rural debts themselves. There is no doubt that the debt conciliation measures and the transfer of debts on to the shoulders of the government have been salutary measures. They have of course not freed the farmers from debts. But the burden has been greatly reduced.

The Nature of the Problem

Rural debt has a maximum limit beyond which it cannot rise. This limit is set by the value of the cultivator's land.

As soon as the debt accumulation approaches this limit transfers of land take place, and the debt is wiped off. The maximum limit may have been reached only in some cases. If it is reached in all cases all land would become the property of the sowcar and all farmers would be turned into landless agricultural workers. So far this has not happened. Nevertheless, the rural debt has on the whole a tendency to rise rather than fall. In lean years, particularly in the years of trade depressions, rural debt increases in amount. The cultivator suffers from money famine in such years and has to have recourse to the money-lender. Moreover, the rise in the value of money increases the real burden of the debt on the farmer. More and more pieces of land pass from the farmers to the sowcars. Arrears of unpaid debts increase and there is in the rate of new borrowings. All this naturally aggravate the problem. In years of high prices the other hand, the cultivator is better off. The rate of repayments of loans and of payment of interest dues increases. The farmers try to purchase lands even at high prices. The rate of new borrowing diminishes. The situation is thus on the whole eased. But if we take the good and bad years together it is found that the progress achieved in good years in securing relief from debts alleviates the situation only partially. Bad years follow good years and more than destroy the progress of good years. If we take a long-period point of view it appears that there is a tendency for the debt situation progressively to deteriorate.

Poverty is clearly the root cause of rural debt. Most debt is of an unproductive kind, and is incurred for consumption. Social customs undoubtedly play a heavy part. But these customs only provide occasions of happiness in the otherwise beggarly life of the cultivators. No amount of educative work

can do away with the problem. It can be attacked mainly from the side of incomes and not from the side of expenditure. The approach to the problem has therefore to change if good results are to be achieved.

Before the war the total rural debt in British India was estimated at about Rs. 1200 crores. If we add to it the rural debt in the native states the total would come to more than Rs. 1600 crores. During the course of the war a part of this debt must have been paid off. The total debt may yet stand at about Rs. 1400 crores for the whole India. The whole of this debt cannot be of a long-term character. Some of it is bound to be short term debt which is normally paid back every year and renewed for the season. Whatever part of the short-term debt remains unpaid is added to the long-term or funded debt. Then again, out of the total debt a major part consists only of unproductive loans and the rest would represent productive loans invested in land or in current needs of the agricultural operations.

II

REMEDIES

Past Debts

Whatever debt it was possible for the peasantry to repay on account of the period of prosperity which it enjoyed during the war can be supposed by now to have been repaid. The rest, namely, the debt amounting to about Rs. 1400 crores, cannot be repaid. It is therefore necessary to devise some method by which it can be liquidated. Honest students of the rural problem of India will readily agree that a scaling down of this debt is very necessary if we are to solve the problem. The sowcar has earned, on a good part of this loan,

interest which has far surpassed the principal. Some of the debt is actually far less than the sums stipulated in the debt deeds. Taking all these factors into consideration it would only be just that the debt should be scaled down considerably. Before we do so, however, we can legitimately separate the productive part of the debt from the total. There need be no scaling down of the productive part. Its amount will have to be found at the time of introducing co-operative farming. This productive debt can then be transferred to the account books of the farm corporations. The corporations can easily arrange to pay it off over a period of say twenty to twenty-five years. The remaining part of the debt is clearly unproductive. This should be scaled down at least to half the total sum including interest accumulations. The sum thus arrived at will have to be saddled on the wages and rents of the farmers joining the corporations. The farmers will not be in a position to begin repaying it for sometime. There should therefore be no repayment within the first five years of the formation of co-operative corporations. Payment by instalments should begin from the sixth year, and should be spread over a period of twenty-five to thirty years. It is in this way alone that the problem of the accumulated past debt can be satisfactorily solved.

Future Debts

We are however not out of the woods yet. The surgical remedy regarding past debt must be accompanied by preventive measures which will eliminate the tendency of the farmer of again running into debts, and undoing the good results of the surgical operation. It will not be difficult for the reader to see that some of the preventive measures will be supplied by the introduction of co-operative farms and the output and

price stabilization measures. Co-operative farming will increase the farmer's productivity. Perennial irrigation facilities will make his crop-yields certain and will make farming a whole-year occupation. All the three advantages viz: increased productivity, secure crops and permanent whole-year employment will go a long way in increasing the farmers' income. The price stabilizing measures will guarantee the money returns of the farmers' annual labour. These measures, by themselves, should, in my opinion, prevent the farmers from running again into debts. Further, when the repayment of past debts is completed, the farmers will enjoy a rise in incomes to the extent of the original instalments saddled on their incomes for the purpose of repayments. It is possible that, in spite of all the favourable factors stated above, the peasants may yet require some temporary accommodation. It would then be necessary to provide facilities for temporary loans to meet short-term needs.

There are three classes of the peasantry which may require short-term loans for their needs. They are, the landless farm workers, the poor peasants with tiny holdings of land and the middle peasants who own fair-sized pieces of land. Under the system of co-operative farming the second and the third classes will own stock in the corporations. This stock entitles them to a definite annual return. Such a stock which yields a guaranteed return can easily be given as security for a loan to a bank. The government can legally limit the borrowing operations of the stock-owning farmers only to joint stock banks by enacting that no money-lender can become a stockholder of the corporations. Under the planning scheme suggested by me joint stock banks are bound to penetrate into the rural areas. Short term accommodation of the farmer will, in this way, be arranged without any difficulty

whatever. Moreover, the rate of interest charged by the banks will be far lower than what it is at present.

For the landless farm workers and even for the poor peasants some sorts of mutual aid societies formed on the lines followed by the trade unions in Great Britain will be of great use. They can be formed by the peasants themselves and can be recognised by the corporations and the government. The corporation can itself become a member of such societies, and can generously contribute to its funds by way of membership fees and donations. The societies should meet the needs of the needy farmers and should arrange the help mainly in the form of outright gifts so long as the needs are small. For needs requiring heavier finance, loans may be advanced at low rates of interest and repayments arranged through the corporation itself. The corporation should, month by month, deduct from the farmer's remuneration the instalment of repayment. This will result in an automatic liquidation of loans.

III

INTERNAL NEEDS

Farm Corporations

We have so far dealt with the question of past debts and the future personal needs of the farming community. It is now time to turn to the needs of the corporations themselves as well as of the government in its task of introducing the planning measures. We shall at first turn to the needs of the corporations. They do not require any elaborate arrangements and can be easily dealt with. It is necessary, in this connection, to distinguish between the internal needs of the co-operative farm corporations and their external needs. The corporations will clearly be business concerns. As institu-

tions undertaking the production of agricultural goods, dairy goods and poultry goods on modern mechanized lines they will require a large stock of permanent capital to start with. Each farm will, in the first place, require one or two tractors and at least two motor lorries for ploughing the field and for transporting the goods respectively. They will also have to undertake the work of levelling the land and of fencing it. They will require buildings for storing grain or any other produce of the soil, hay, fertilizers and agricultural implements. If irrigation is possible by boring wells only, the farms will have to bore their own wells and fit them with pumps and wheels. They will need a building for the purpose of the farm office and a hall for the meetings of members. The farm will have to build a shed for its cattle and to store fodder. It will require sheds for housing the poultry. For the purpose of meeting their short-term requirements of fertilizers, spare parts, small implements, stationery and of wages for workers the farm must arrange a sort of annually revolving credit.

External needs

The external needs of the agricultural industry as a whole are such that they can be catered for only if the government undertakes to provide them. For example, the supply of tractors and motor lorries can be assured only if the national planning authority establishes tractor factories and factories for the manufacture of motor lorries. Irrigation facilities, in so far as they can be supplied by means of canals, tanks and reservoirs, have like-wise to be the responsibility of the government. The government will also have to establish a large fertilizers industry and an industry for the manufacture of pumps and other agricultural implements. Further, in order

to cater for the needs of the building programmes of the farms it will be necessary to ensure the supply of bricks, tiles, wood, cement, glass, girders, bolts, nuts, screws, iron bars and corrugated sheets. These are the industries which, even though they are external to agriculture, will enable the farms to equip themselves with their internal and permanent capital requirements.

The government, if it means serious business in the planning of agriculture, will have to undertake a big programme of building roads, bridges and railways in order to supply the country with up-to-date transport with a view to facilitate the rapid, safe and efficient distribution of goods from the centres of production to the centres of consumption. This is not however the whole story. If the government undertakes the work of price stabilization and is, for that purpose, required to build up its own stocks of goods and its own retail shops and stores, it must have godowns, shop-buildings and offices for the various boards which will begin functioning as soon as price stabilization measures are introduced. The above requirements in general indicate the needs of the long term capital equipment of the farms. Besides these, there is the supreme need of finance required for the purchase of stocks for annual sale, wages of godown keepers, government retail shop-keepers and all other office-bearers, and finance for the upkeep of all these institutions.

IV

USE OF EXISTING EQUIPMENT

It will clearly be considerably wide of the mark if I maintain that it will not be possible for us to meet our requirements otherwise than by having all the capital equipment, mentioned above, newly manufactured. The community's life

goes on with the existing equipment. The farmers plough their lands with their own ploughshares and pairs of bullocks ; they store the grain and hay in their households and courtyards, and they transport their produce to the nearest markets in their own wooden carts. Some sorts of roads are there. The railways have godowns of their own. The wholesalers and retailers have godowns. The indigenous bankers and the merchants finance the sales and purchases of farm products with their own and borrowed funds. In the initial stages, for some years to come, the loose machinery as it is can be worked until the farms are financially strong enough to purchase the necessary equipment. So far as the farms' internal requirements go, the cowdung from the cattle sheds can be used as manure, as also the village waste and night soil. The villagers' ploughshares and bullocks can be used in teams to plough up the whole farm. The houses and courtyards in the villages can, by common agreement, be used for storing grain and hay. Wooden carts can be used for transport. Railway godowns can be refitted and private godowns hired. The arrangements made by the government for rationing purposes during the war period can be easily used, for some years to come, with suitable modifications. In general, wherever it is possible to make use of existing arrangements, attempts must be made to use them. The transition towards modernization can then be spread over a period of from fifteen to twenty years and the resources of the farms can be gradually harnessed for the purpose as and when they grow up.

Provision of finance: Fixed capital

The provision of the necessary capital equipment of the farm must ultimately come from the surplus income of the

farm and the farmers. This surplus will gradually increase as a result of the operation of two forces. Firstly, the productivity of the farmer will increase. Secondly, the number of workers on land will gradually diminish as and when they are transferred from agriculture to the manufacturing sector of the community's economy in accordance with an all-India plan of rapid industrialisation of the country. The income per head of the agricultural population will thus increase and provide a surplus which can be re-invested in the farming business to equip the farms with modern implements and machines. The interest on the investments will go to the farmers themselves.

When all this is said, however, the problem of determining the total finance required by the farms and by the government still remains. The student of economics must state here frankly that he is not a technician. He cannot therefore say how many kinds of machines will be required ; neither can he say anything about the amount of building and other material required for the purposes on hand. He cannot, by any stretch of imagination, know the prices of all of them as they would be when they will be required. All this ignorance of the student of economics regarding the technical aspect of the question makes it very difficult for him to form accurate estimates of the financial requirements of the plan.

I have already stated that every co-operative farm will require tractors, motor lorries, farm houses for storing the products of the farm, an office establishment, a cattle shed, a poultry shed and some agricultural implements. Initially, the farms will be of about 500 acres each in area. Eventually, the size of each farm will be further enlarged to about a thousand acres each by further amalgamations. Each farm of a thousand acres will require the equipment mentioned above.

Out of the total equipment that which will have to be purchased from outside will consist of tractors, lorries and other mechanical equipment. The rest can be build up by the farms at very low costs. I expect the capital requirements of each farm to be about Rs. 75,000 to Rs. 80,000. The total number of farms requiring tractors in the whole of British India will be about 1,50,000. The requirements of fixed capital for the whole of India, at the rate of about Rs. 75,000 to Rs. 80,000 per farm, will come to about Rs. 1200 crores. The annual produce of the soil and the produce of live-stock in British India are estimated at about Rs. 1,200 crores on the basis of 1928 prices. The capital requirements are thus practically equal to the annual national income from agriculture and live-stock. If every farm sets aside $2\frac{1}{2}$ p.c. of its gross income before distributing wages, rents, interest etc., per year for building up a capital fund, it would be possible for all the farms to meet nearly half of their requirements in about twenty years. If accumulations are continued for another five years it would be possible to raise Rs. 150 crores more for further requirements as well. I suggest therefore that this is the plan which the co-operative farms should be required to adopt as a part of the conditions of their recognition and registration by the government. Half of the long-term internal capital financing of the farms will be met, in this way, from the revenues of the farms themselves. I have no doubt that the productivity of the farms will increase by much more than $2\frac{1}{2}$ p.c. as soon as the co-operative principle is introduced. There will be, therefore, no extra burden whatever on the agricultural population. Regarding the other half I suggest that the annual instalments accumulated by the farms to pay off the old rural debt should be ploughed back into the farms. The total old debt would probably amount to about Rs. 500

or 600 crores after it is scaled down. If the debt is to be liquidated in twenty years the total accumulation would amount to the full sum in the same period. Interest on it can be paid to the money-lenders at the rate of 3 p.c.

Working capital

The provision of working capital will have to be made in a different way. The farms can begin working on a co-operative basis after the first harvest is gathered. In the first season of its working no wages need be paid. When the first proceeds of the sale of the produce are secured they should be held by the farm and paid to the farm workers in monthly instalments, till the sale proceeds of the next crop are at hand. The accounting wages of current season will be different from the wages actually paid, because the wages paid would be for the preceding season. A season's wages will thus always be in arrears. It would be as if the farmers give a season's credit to the farm. It is only if a method of this kind is followed that working capital for the payment of monthly wages will not have to be borrowed. This is because the farm members would always work on a season's credit. After the first season there will be regular monthly payments. Only, the payments will be on account of preceding seasons and not current seasons. Working capital for purchasing raw materials, fertilizers etc. can very easily be provided by the banks. Capital requirements on this account will not be large and the joint stock banks will be in a position to provide for them in an ample measure.

V

FIXED CAPITAL

Government Needs

This brings me to the question of the needs of the government in the work of agricultural planning. The government

will be mainly concerned with finding money for the external planning of agriculture. Building of roads and irrigation works, establishing tractor factories and fertilizers factories will be some of the major items in its programme. Excepting the manufacture of tractors, other items of the programme have already been included by the government in their present plans. The details of these items will have to be so fixed as to answer the requirements of the suggestions I have made. The farming business in India will in my opinion require about 3,00,000 tractors. If 50,000 tractors are manufactured every year, all the supply of 3,00,000 tractors will be available in five years' time. The life of a tractor is supposed to be about five years, so that, by the time all the required 3,00,000 tractors are manufactured, the 50,000 tractors, manufactured in the first year, will fall due for replacement. Thus we must have a tractor factory or factories having an aggregate capacity for manufacturing about 50,000 tractors annually or about 200 tractors a day. The daily output will be worth about Rs. 32 lakhs. The value of the annual outturn will be about 100 crores. I have no idea about the fixed and working capital necessary for establishing factories which would have a capacity of Rs. 100 crores worth of annual production. But I think it would not be difficult for the government to establish such factories.

Other Needs

The cost of properly running the administrative machinery from year to year for operating the plan will have to be found from the annual revenues of the government. I have already shown before how the introduction of co-operative farming will enable the government to save quite a large amount of expenditure at present incurred on the revenue department.

This saving could be transferred to the planning department and used for meeting the administrative cost. In the work of price stabilization the planning body will have to maintain quite big stocks of agricultural commodities with a view to defeat the action of any private monopolists in cornering the stocks. Over a period of five years or so it would be possible for the planning body to build up stocks worth about Rs. 100 crores. Each year the body can borrow in the market Rs. 20 crores. This is a modest borrowing programme and will ultimately enable the body to build up stocks capable of effectively influencing the market. Stocks worth about Rs. 100 crores should, in my opinion, be sufficient for this purpose.

The reason is that more than 60 p.c. of the produce of the farms will be, in the first ten years or so, consumed by the farmers themselves. The remaining stock worth about Rs. 500 crores will come in urban areas for consumption and export. Stocks required for exports will be handled by the planning body itself. Thus there remain stocks worth about Rs. 400 crores. If the planning body has on hand stocks of one fourth the value of the urban stocks, that is to say worth about Rs. 100 crores, it can effectively destroy the monopolistic action of private traders.

The Price Stabilization Board will be mainly concerned with taking over the surplus stocks of the co-operative farms and distributing them to the wholesalers, government-owned retail shops and consumers' co-operatives. In doing so it will have to pay the price of the stocks to the co-operative farms. How much of finance will be required for this purpose ? In my opinion it will not be necessary for the P.S. Board to find the money wherewith to pay the price. If the Board directs the farms to dispatch their stocks to the dealers with

whom they are linked up and direct the dealers also to pay the prices cash down and take delivery it need not worry about financing the purchases and sales at all. Even under the existing arrangements, the wholesalers are required to find the necessary cash to pay to the cultivators.

CHAPTER VI

Rural Reconstruction

I

The material and moral degradation of the rural masses in India is so appalling that it has inspired the social worker, the economist and the politician in India to put the problem of rural reconstruction in the forefront of their programmes. The social worker feels concerned with the moral aspect of the question, the economist with the material aspect, and the politician with both. It is, however, amusing to find that while the economist wishes to lessen the burden on the soil by a rapid industrialisation of the country, the politician and the social worker raise the cry of 'back to the villages and lands.' The politician wants the village industries to revive and the villages to be self-sufficient. Each tries to follow his own methods and none is nearer the solution of the problem for it.

It is at the outset very necessary for us to be clear as to what we mean by the term 'rural reconstruction.' Does it mean that we have to reconstitute village life on the same basis from which it was uprooted by the invasion of modern capitalism in India or does it mean a renovation of the rural life on new lines in greater accord with modern trends ? There is no doubt that the dislocation caused by capitalism in a colonial and dependent country like India has not given place to any new acceptable substitute organisation. That is how rural India stands at present as an edifice smashed by the

impact of two opposing social forces. What then do we mean by 'rural reconstruction, and what are the methods by which it can be effected ? In order to answer this question satisfactorily it is necessary to appreciate correctly what is it that has been smashed. In other words we must know the nature of the organisation of the rural economic and social life as it was in feudal India.

Pre-British Village

In the feudal India the village was a self-contained unit. There were very few means of communication. Trade between the different parts of the country was very small. The rural areas in India were thus in the nature of a mosaic in which every village was independent of all others. It consisted of owner-cultivators, big landlords and artisans. The artisans rendered services to the members of the village-community, and in return got a share of the farm produce. There were some local officials and servants who enjoyed possessions of agricultural lands given to them in exchange for their services. The artisans including the blacksmith, the barber, the washerman, the oil presser, the village priest and others performed their yearly round of services and got, at the harvest time, their dues in kind. A share in the produce was their customary right. All relations were based upon customary rights. Spinning and weaving were occupations widely practised and the clothing needs of the village community were largely satisfied by the cloth manufactured in the village. A village was a world by itself. Its life continued through all the storm and stress of history. Invasions came and went, shook the villages by terror and passed away. But the village remained a unit because land was the basic factor which held the village community together.

It must be remembered that the self-contained character of the village did not make it immune from calamities. Famine was the greatest calamity. The occurrence of a famine meant for the villagers a disaster of the type of a modern bomb attack. There was no remedy against it as food could not be imported. The second intermittent calamity was that of epidemics. When an epidemic started there was no remedy except prayer. Lots of people used to die and no methods of prevention were known. The third danger was of invading armies. When the invading armies visited the village the soldiers used to rob the village folk, plunder the whole village, massacre the population and then leave the village. Mute suffering was the course possible under the circumstances. The fourth danger came from organised robber bands. The villagers used to act unitedly against robbers. But, in general the villagers suffered.

Notwithstanding all these perils of life and threats to daily existence the village had a sort of stability of life. The life of the village was a cohesive life. Within the village there was division of labour and interdependence. Within each family also there was interdependence and community and though the ancient law of equal division of the paternal life. Ownership of the land was held by the family as a whole, and though the ancient law of equal division of the paternal estate among the heirs prevailed, the eldest member always managed the estate in the name of and for the benefit of the whole family. Partitions were seldom effected because land was the major means of livelihood. The claimants to land could not leave the village and could not create separate family establishments within the village itself. Social opinion was always in favour of joint holdings and against separation. The joint families were knit together among themselves by

various kinds of social ties and interdependence. Further, there was a solid and tangible material basis for joint life. The village folk as a whole had, under their management, the village waste land as well as the village grazing pastures and meadow lands. The dilapidated village housing sites, nullas, trees, roads, gullies and water tanks, were managed by the village as a whole through the gram panchayats formed of the elders elected by the village residents. In many cases the village as a whole was responsible for the payments of state dues. The village was of course linked up with the district, provincial and central governments through its officials like the village patils, talathis and kulkarnis. But the panchayats were given some judicial powers over small cases in addition to some executive powers, and the interference of the superior authorities was not felt except on rare occasions.

II

MODERN CHANGES

The advent of capitalism and British rule in India changed most of these features of Indian rural life. In the first place, the new means of communication produced their destructive effects. The village industries rapidly died out and the population engaged in them was thrown out of its callings. Secondly, they created a demand for agricultural products like cotton, jute and oilseeds. The cultivator had to produce not for the local market but for the world market. The village thus began to produce for the world and also began to import goods from outside. The so-called self-sufficiency was now at an end. The rural areas of India became a part of the world system of production and exchange. In this transformation the danger of famines was eliminated. But it was

clearly at the cost of self-sufficiency. The establishment of British rule brought with it peace and immunity from invasions and robberies on an organised scale. Diseases of course continued. But, in general, life became more secure. In addition to this the village was affected in a totally different way also. The British government made all property, not owned by individuals, a state property. Its disposal and use became, in this way, at once, the concern of the government. Anyone wishing to use the waste land of the village or its grazing land could do so only after he could secure permission from the government. All disputes regarding land or other occurrences in the village were thereafter to be dealt with by the government. The community and cohsiveness of human life were thus destroyed. Its collectiveness and its democracy were at an end. For everything that happened in the village as well as for most things that it needed the reference now lay outside the village. In a sense this was inevitable. The law courts began to administer the ancient law of division of property. There was nothing for which the villagers could meet together, take decisions and work together.

Aims of Reconstruction

The account given above of what happened to the rural life in India leads us to the question with which we started. I must state it clearly at this stage that many of the happenings in history cannot be undone. We cannot destroy the means of communication which were the primary cause of the disruption of village life. The rural parts of India must continue to be a part of the total world economy just as the whole of India is a part of the total world economy. It is inevitable in the nature of things that this should be so. This does not mean that we cannot build up a community life and democracy

in rural India. It can and ought to be done. Further, it is necessary that the village community and democracy should be linked up with the whole of national democracy and eventually with the world democracy. We must likewise try our utmost to modernize the economic and cultural life of the villagers. It must be brought on a par with the economic and cultural life of the urban areas. The conflict between the rural and urban India can and ought to be solved only on this basis. It cannot be solved by reducing the urban life to the rural level or by reducing the rural life to the ancient level of self-sufficiency. But, if all this is to be accomplished, the villagers must be better housed, better clothed, better fed, better educated and must be made politically more conscious. They must be enabled fully to shape national policy according to their desires and aspirations. Villages must be turned into miniature cities with all the modern conveniences and amenities of life. The programme of 'rural reconstruction' must have in it all the aims which I have stated above. Any other kind of alternative programme will only serve to side-track the issue and to waste precious time. Moreover, it is bound to fail in the end.

III

FINANCE FOR RECONSTRUCTION

For the complete modernization of rural life in India it would, in the beginning, be necessary to raise the income level of the farming community. I have already suggested, in my programme of agricultural planning, the measures for raising the income level. These measures are, firstly, directed towards raising the efficiency of the farmers, and secondly, towards the transfer of the superfluous farming population over into the sector of the manufacturing industries in the

national economy. Both these aims, when achieved, will raise the rural income level at least to thrice or four times its present height in the course of about twenty-five years. Modernization can be brought mainly out of the increased rural incomes created under planning.

It is however possible to provide money for rural reconstruction even from the existing rural income. But this would require a radical reconstruction of the system of public finance in India. According to the existing arrangements the revenue heads of provincial governments consist of land revenue, excise on liquors, stamps, forests etc. The central revenue heads are customs, income-tax, railways and others. Land revenue income of all the provinces amounts to about Rs. 35 crores. Excise revenue amounts to the same figure. The whole of the land revenue and a part of the excise revenue come from the rural areas. So also does a part of the stamps revenue. Among the central revenues a major part of the yield on salt comes from the villagers. Some of the railway receipts similarly have their origin in rural India. Out of all the tax receipts the revenue amounting to much more than Rs. 80 crores is purely rural revenue. On the expenditure side it is interesting to note that most of the provincial revenues are spent on the urban areas. The villages have no roads, no lighting, no water supply, no sanitation, no medical relief and no education. The revenue receipts from the rural areas are thus clearly in the nature of pure exploitation for the benefit of the urban population. The central expenditure is mostly concentrated on defence. The system of public revenue and expenditure in India is and has always been of a feudal character. It robs the villagers to feed the towns and robs the towns to feed the defence services. 'The government taxes the masses and exempts the classes.' It feeds the classes

and starves the masses. It is high time that this system of naked exploitation stops. Rural revenue must go back to the villages in the form of public services. This means that all the Rs. 80 crores and more of the provincial and central revenues must be spent on the villages. If the urban areas and the central services are starved in consequence, the urban population must be prepared for higher taxation to meet the deficit. I am quite sure that the proceeds of sales tax and of the central excises will yield a large amount of revenue. There could be a considerable amount of retrenchment in the defence expenditure and the civil administration. There is, in consequence, no possibility of the financial arrangements breaking down if rural revenue is directed to rural area for expenditure.

If Rs. 80 crores of revenue is directed towards the villages for expenditure the villages would get back in the form of public services what they surrender to the state in the form of revenues. This would be in accordance with the general principle of public finance namely that whatever comes from the pockets of the tax-payer in the form of revenues must return to him in the form of services. In twenty years' time the expenditure on rural areas would, in this way, amount to a fat sum of Rs. 1,600 crores. This is bound to yield untold benefits to the cultivator. About Rs. 3,200 will have been spent, by this procedure, on every farm colony per year. In twenty years the sum spent on every farm colony would amount to more than rupees sixty-four thousand. The villages will as a result of it be turned into miniature towns. A number of modern amenities of life can be supplied to the rural areas, and the consequent betterment of the country-side is bound to redound to the benefit of the central and provincial revenues. Expenditure on the villages will be mainly in the nature of

investment of a productive character. Education will improve rural efficiency. Medical relief and sanitation will also do the same by improving the general conditions of health and physical fitness. Roads, civil buildings and electricity will increase employment in a number of ways, and hence increase the income of the people of the country as a whole.

With all these improvements, rendered possible by such a revolutionary transformation of the revenue and expenditure arrangements as suggested above, the village may still remain relatively backward. The farmers will still need modernized houses, furniture, books, clothes and other amenities of life. All these can, in the last analysis, come only from the rising incomes of the farmers. It is quite possible for the co-operative farms to undertake a housing programme for its farm workers. Such a programme will, however, have to come only after the lapse of a few years from the time when planning is initiated. When the capital requirements of the farms are fully met, the accumulation device adopted for providing it can continue to operate and to build up funds. These funds can be spent on housing, cinema theatres, libraries, playgrounds, gardens, public baths, swimming pools and other cultural needs. The rise in the farmers' incomes will provide resources to enable them to have more clothing, furniture and more of other comforts of life.

IV

ECONOMIC AND POLITICAL DEMOCRACY

Most of the economic transformation will have to be accomplished not from the initiative of the top administration only but also from the initiative and active co-operation of the villagers. It is in this way and in this way alone that the

whole programme of reconstruction will have to be executed. In order to achieve a far-reaching good of the people at large the democratic method is the only most efficient and effective method. I suggested that co-operative farming on a large scale should be introduced in place of the existing individualist small scale farming. This measure constitutes, in my opinion, the first step in creating among the villagers a common interest. In feudal India their common interest was concentrated only on the village grazing and waste land. Under the new arrangement, however, the entire agricultural land becomes common property. The business of farming becomes a common and collective responsibility. The farmers under it would daily meet together, think together, work together, take decisions together and execute them together. A real communal and collective life would be newly created for them. This will make the farmers' mental make-up suffused with a democratic spirit. It would, in course of time become a habit of their mind. Once democracy takes a firm root in the villages its cultral potentialities would begin unfolding quickly.

The village is in fact an agricultural colony. As such it will have a civic life of its own. It will have a large number of civic problems to deal with and will require a municipal government of its own for the purpose of solving them. Education, medical relief, water supply, lighting, roads, museums, and radio stations will all have to receive the close attention of the village government. The village government can go even further. It can run some municipal businesses itself. Stalls for selling vegetable and garden produce, stationery shops, chemists' shops, groceries, and restaurants can be established and run by the village municipal government. It can

also undertake the duties of watch and ward, police and justice. It can, in fact, become a miniature state up to a limit.

When the economic life of the village community is based upon collective work and collective thought it would not be in the least difficult to organise its political life also on a thoroughly collective and democratic basis. Politically the village community will have its own village organisation. But it will also be connected with the organisation of the district, of the nation and of the federation. It will have to elect members for the legislative bodies of the whole of this pyramidal structure. It must become an active cell in the whole of the body politic. All the currents of the active political life of the whole country will have their repercussions on the village. The village will also contribute its own political ideas and experience to the country's life. The municipal government of the village should be organised on the basis of a sort of village council. Its membership will clearly depend upon the population of the village. The council can be elected by the entire adult population of the village. It should have a life of at least two years. It must deliberate on all important matters of civic interest and should meet for the purpose as often as is necessary. The council must have a Village Action Committee formed of persons elected by the members of the Village Council. The committee will naturally look after the day-to-day functions related to the subjects under the charge of the village community. This committee will be accountable for whatever it does to the Council and the Council in turn to the whole body of the electorate. The council's income will consist of profits from village undertakings, rates for water, electricity, drainage, municipal subscriptions and such other taxes. It can also raise loans.

V

CONGRESS PROGRAMME EXAMINED

Village reconstruction is generally not seen in the light in which I have tried to approach the problem in this chapter. According to the popular ideas current among social and political reformers in India the problem of rural reconstruction requires to be tackled from two sides, one of which is moral and the other economic. Stress is of course laid on the removal of illiteracy. But over and above the question of making the villager literate it is supposed that his moral character requires to be raised to a higher level. Many of his ills are attributed directly or indirectly to the low level of rural morality. The farmer spends too lavishly; he is very quarrelsome with his neighbours and he has an inordinate love of litigation. The social reformer is thus advised to concentrate his attention on the removal of these drawbacks in his character. In regard to the economic side of the problem of reconstruction the question has been consistently viewed against the background of a prejudice against modernism in general and against western culture in particular. The villager, it is said, has to be freed from the evil habits of tea, tobacco, toddy and gambling which are all modern evils. But, over and above this, the age-old Indian ideal of plain living and high thinking must, it is said, be taught to the rural population. Villages must, be self-sufficient. The occupation of farming must be carried on as usual on individualist lines. But just as the farmer produces his own food, he must also be taught to produce his own cloth. The industries of hand-spinning and hand-weaving must be encouraged. These industries must be revived. Khadi production must spread in every village. The Congress must have the item of encourage-

ment to spinning and weaving as an essential and important part of its programme in its struggle for independence. Self-government can only be secured by spinning. Every member of the Congress must be under compulsion to spin yarn with the village spindle every day. Other small scale village industries also should be revived. We cannot have the curse of modern civilization. Prof. Agarwal has prepared a Gandhian plan of economic reconstruction for the whole of India. Eminent economists have written quite an amount of literature on the 'Economics of Khadi.' A whole section of congress organisation is devoted to the purpose of encouraging Khadi industry.

One has only to look around a bit in order to get convinced that not even one percent of this programme is going to succeed. The entire trend of the Indian economy is in the direction of large scale industry. Right under the very nose of the Congress, Indian industry is steadily moving in the direction of modernization. The Khadi industry has not taken root anywhere. The handloom industry is slowly but unmistakably dying out. The 'big business' programmes of post-war industrialisation are based fully on modern lines. The new recent practical developments are in the same direction. In the face of these facts he would be a bold man indeed who still clings to the myth of self-sufficiency. It is not however only the modern trends which go against the doctrine of feudal self-sufficiency. The economic programme of the Congress cannot, even on the basis of wildest expectations, give to the mass of the farming millions in India, a standard which can be considered as decent. Even the decent standard of life of the congress definition cannot be attained under the operation of this plan.

But the programme is basically unsound because its

operation in practice is likely to render the economic problems of our country far more difficult and acute than they are at present. Fundamentally the plan and the programme are based on the principle that it is desirable for every person to reduce one's wants rather than to increase them. As soon, therefore, as it begins to be put in practice it is bound to affect adversely the existing industrial structure. The demand for the products of existing industries will go down, and there will, in consequence, be a fall of prices, a reduction of output and unemployment. The effect of this all must be in increasing social discontent and mass misery. Rural population will stagnate in rural areas and the burden on land will increase. Output of agricultural goods will not increase and starvation will be more widespread. Foreign competition will smother our agriculture as much as it has smothered our industries. The dynamics of every modern society demands that capital formation and output of goods must steadily increase if the community is to assure jobs to all the nationals of a country. The Gandhian plan is therefore one of creating unemployment instead of reducing it.

The framers of this feudal plan think that increase of wants by itself is bad and demoralising, whatever the character of these wants. It forgets that it is quite possible as well as necessary to encourage the wants which are wholesome and discourage those that are detrimental to the individual and the society. With proper education and scientific knowledge it is quite possible to create an expanding structure of wholesome wants. The social-economic structure, with all its modern transport system and giant industries cannot be scrapped, but can, without doubt be used to cope with the expanding structure of wholesome wants. The Gandhian plan has, therefore, to be rejected fully and finally.

CHAPTER VII

The Machinery of Planning

I

INTRODUCTION

The last six chapters were devoted to the development of the plan for putting agriculture on a scientific footing and for reconstructing the Indian rural life. All along in the development of the plan the approach to the problem was made from the village. It now remains to link up the rural organisation with the administrative machinery at the top. This last part of the plan we shall develop in the present chapter.

I have already often referred to the fact that planning must facilitate the introduction of scientific methods in the farming business. Planning has to be introduced precisely for this purpose. Agriculture is practised at present by poverty-stricken and ignorant people. With its microscopic scale of operation it is impossible to introduce in it any far-reaching improvements. Large scale planned farming alone will make the introduction of scientific improvements possible. Improvements are required in a large number of items. We must have better seed and drought-resisting plants. We must free the crops from diseases. We must solve a large number of problems connected with irrigation, water-supply, water-logging, alkaline formation, soil erosion and a host of others requiring close study. Then there are improvements necessary in the methods of farming, in labour efficiency and in the

machines. Similar problems arise in connection with cattle rearing, dairy farming and poultry farming.

Besides these technical problems we have a number of improvements to effect in the transport and marketing facilities of the rural areas. In the transport of goods attention has to be devoted to the provision of good roads and modernized means of conveyance, with necessary facilities for unloading and transhipping goods. In the marketing of goods we must provide suitable machinery for grading and standardization, ware-houses, and godowns. In the following section we shall try to suggest the necessary administrative and other apparatuses.

II

THE ADMINISTRATIVE MACHINERY

I suggested in the second chapter that the subject of agriculture should be transferred to the federal government for management. If this suggestion is carried out certain radical administrative changes will have to follow. The provincial departments of agriculture, irrigation, cooperation and veterinary services will have to be transferred to the federal government. The federal government will have to create a new separate department of agriculture. The provincial departments should be made directly subordinate to this federal department of agriculture. The Imperial Council of Agricultural Research and the Central Agricultural Marketing Department should both be made subordinate to the department of agriculture. The Imperial Council of Agricultural Research should be called the Federal Council of Agricultural Research and the central department of Agricultural market-

ing should be reconstituted and formed into the Federal Council of Marketing and Transport.

The F. F. Boards and R. T. Boards of each crop zone will be in constant touch with the two Federal Councils. The F. F. Boards will really be in the nature of post offices. All difficulties regarding the technical problems of production which are experienced by the co-operative farms should be communicated to the Federal Research Council for solution through the F. F. Boards. Similarly, all results of the researches undertaken by the Research Council on its own initiative should be communicated to the relevant co-operative farms through the F. F. Boards. The F. F. Boards are the real link between the top administration and farms at the bottom. The R. T. Boards, on the other hand will be mainly concerned with purchase, sale and distribution of the agricultural and other produce. These are the boards to which all difficulties regarding marketing and transport will have to be referred. These boards should submit all the difficulties, properly classified, to the Federal Council of Marketing and Transport together with all the suggestions which the Boards may have to make in regard to those difficulties.

Then there will be two additional bodies directly under the agricultural department. These bodies are the National Crop Planning Board and the National Price Stabilizing Board. Both of them will be assisted by consultative Councils elected from the members of the F. F. Boards and the F. S. Committees. Questions concerning output needs and possibilities will have to be handled by the F. F. Boards and their consultative council. The final decisions will have to be taken by N.C.P. Board. Questions related to 'buffer stocks' purchase, sale and distribution will have to be handled by the F. S.

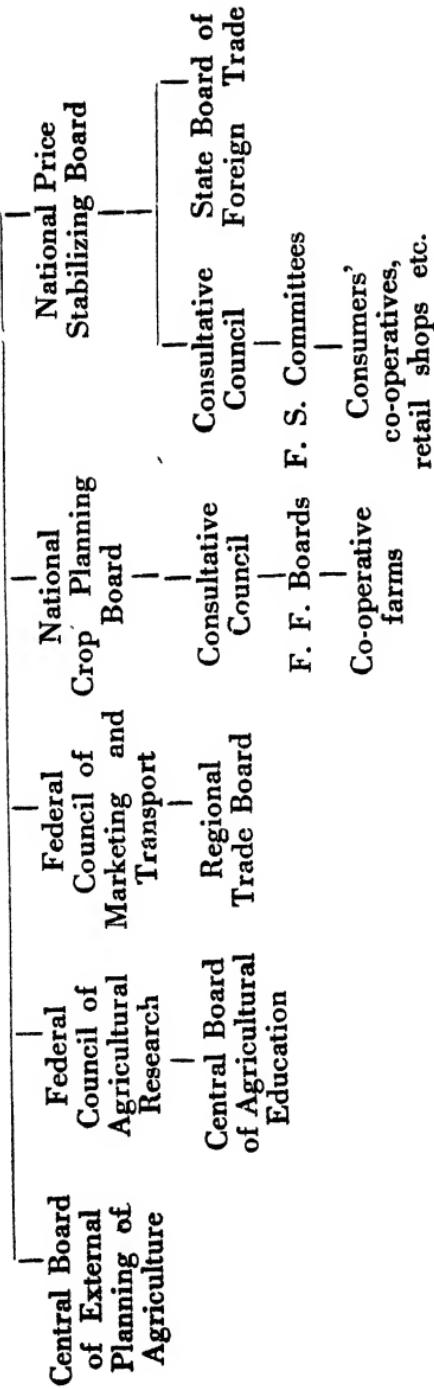
Committees and their consultative council. Final decisions about these matters must remain with the N.P.S. Board. The State Board of Foreign Trade will be a body subordinate to the N. P. S. Board and will work under its directions. The organisation of agricultural education in the form of schools, colleges research institutions should be entrusted to a body formed out of all the four major bodies mentioned above. This body should be subordinate to the Federal Council of Agricultural Research. It should be called the Central Board of Agricultural education.

The government has also to organise a Board of External planning of Agriculture to organise and run tractor factories, workshops and engineering establishments. This will be the fifth Board.

The problem of village reconstruction will have to be tackled by a different machinery. The provincial governments can certainly undertake this task themselves. Each provincial government will have to organise its own rural reconstruction department. Education, sanitation, medical relief, industries and all matters of local self-government will have to be looked after by the provincial governments. The general principle to be followed in the case of all of them is that the initiative must come from the villagers themselves. They must prepare plans, estimate their own resources and the additional resources required. It would of course be the business of the provincial governments to allocate sums to the various plans according to their own resources and the relative urgencies of the needs of the villages as determined by them.

The whole of the All-India machinery will look somewhat as shown on the next page:—

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